LA100 EQUITY STRATEGIES

Los Angeles 100% Renewable Energy Equity Strategies

Advisory Committee Meeting #6
October 26, 2022

Summary[1]

Schedule and Location

Wednesday, October 26, 2022, 10:00 a.m. to 12:00 p.m.
Conducted virtually

Virtual Meeting #6 Attendees

Advisory Committee Members

Center for Energy Efficiency and Renewable Technologies (CEERT), V. John White
Chief Legislative Analyst, Rafael Prieto (alternate)
Civil & Human Rights and Equity Department, Joey Garcia (alternate)
Council District 05 – Councilmember Paul Koretz, Councilmember Paul Koretz, Andy Shrader (alternate)
Council District 09 – Councilmember Curren Price, Sherilyn Correa
Housing Authority of the City of Los Angeles, Lisette Belon (alternate)
LA Cleantech Incubator, Mayte Sanchez
Los Angeles City Planning Department (LACP), Shana Bonstin (alternate)
Los Angeles World Airport (LAWA), Laura McLennan (alternate)
Neighborhood Council Sustainability Alliance (Advisory Committee), Ernie Hidalgo
Office of Public Accountability (Rate Payer Advocate), Fred Pickel, Camden Collins (alternate)
Office of Los Angeles Mayor Eric Garcetti, Paul Lee (alternate)
Port of Los Angeles (POLA), Carlos C. Baldenegro
Sierra Club, Katherine Ramsey, Francis Yang (alternate)

LADWP Staff

Andrew Kwok
Ashkan Nassiri
Ashley Negrete
Brian Wilbur
David Rahimian
Dawn Cotterell
Denis Obiang
Iris Castillo
Jason Rondou

[1] This summary is provided as an overview of the meeting and is not meant as an official record or transcript of everything presented or discussed. The summary was prepared to the best of the ability of the notetakers.

Jay Lim
Joe Ramallo
Mudia Aimiuwu
Robert Meteau Jr.
Simon Zewdu
Steve Baule
Vanessa Gonzalez

Project Team

Ashreeta Prasanna, National Renewable Energy Laboratory (NREL)
Eda Giray, NREL
Garvin Heath, NREL
Kate Anderson, NREL
Nicole Rosner, NREL
Patricia Romero-Lankao, NREL
Sonja Berdahl, NREL
Abel Valenzuela, UCLA
Cassie Rauser, UCLA
Raul Hinojosa-Ojea, UCLA
Stephanie Spincetl, UCLA
Yifang Zhu, UCLA
Christian Mendez, Kearns & West
Jasmine King, Kearns & West
Joan Isaacson, Kearns & West
Robin Gilliam, Kearns & West

Welcome Remarks

Joan Isaacson, facilitator from Kearns & West, welcomed members to the sixth Los Angeles 100% Renewable Energy Equity Strategies (LA100 Equity Strategies) Advisory Committee meeting. She introduced Simon Zewdu, Director of the Transmission Planning, Regulatory, and Innovation Division, to provide opening remarks.

Simon Zewdu welcomed Advisory Committee members to the meeting. He noted that the study is progressing in earnest with the project team working on the analysis and conducting community listening sessions. He stated that information from the listening sessions would be shared with the Steering Committee. Simon Zewdu then introduced Brian Wilbur, the new Senior Assistant General Manager of Power System Construction, Maintenance, and Operations at LADWP.

Brian Wilbur welcomed Advisory Group members to the meeting and thanked them for their participation. He noted that the overarching goal of LA100 Equity Strategies is to develop equitable outcomes for all Angelenos and that developing quantitative and qualitative measures to do this is a central aspect of the process. He shared that the City of Los Angeles will lead the country with LA100

Equity Strategies and thanked members for their participation in advancing the clean energy future for all communities.

Simon Zewdu thanked Brian Wilbur and stated that the project team would work with the LADWP Senior Management Office to ensure LA100 Equity Strategies are actionable and implementable for years to come.

Agenda Overview and Introductions

Joan Isaacson highlighted that LA100 Equity Strategies has made substantial progress over the last year. She then reviewed the meeting agenda (see slide 4 in Appendix), noting that the project team would provide updates on the community listening sessions, air quality and health monitoring, community solar and siting, and green jobs and workforce development. Joan Isaacson reminded members about the guides for productive meetings and keeping input concise due to limited time during the meetings. She said that members should continue to use the raise hand feature to provide verbal responses and chat could be used for non-verbal responses.

Community Listening Sessions Update

Patricia Romero-Lankao, LA100 Equity Strategies Technical Lead from NREL, presented updates on community listening sessions (see slides 6-9 in Appendix). Patricia Romero-Lankao recapped the first round, which consisted of five small groups of Angelenos who were asked what energy justice means to them. The second round, underway now, is intended to explore ways to address the challenges identified in the first round. She shared that the September listening sessions were co-hosted with Pacoima Beautiful (San Fernando Valley) and the South Los Angeles Transit Empowerment Zone (SLATE-Z; South Los Angeles). Patricia Romero-Lankao concluded by previewing the 10 scheduled in-person listening sessions.

Air Quality and Health Updates

Garvin Heath, Senior Environmental Scientist and Energy Analyst with NREL, provided an update on medium- and heavy-duty vehicle emissions impact modeling and output metrics on air quality and health (see slides 10-21 in Appendix). He highlighted the collaborative approach between NREL and UCLA for the analyses in these areas.

Garvin Heath described that the collaboration is focused on understanding how electrification of different vehicle types (light-, medium, heavy-duty) and location would provide the greatest benefit to disadvantaged communities (DACs). He shared that NREL only looked at light-duty vehicles in the LA100 Renewable Energy Study, but LA100 Equity Strategies includes assessment of medium- and heavy-duty vehicles. Another question to be answered by LA100 Equity Strategies is if vehicle electrification will provide greater air quality and health improvements in DACs. He stated that the answers will inform incentives and program prioritization, and infrastructure investment locations and sequencing. Garvin Heath also noted Steering Committee feedback to prioritize roads and neighborhoods.

Traffic-Air Quality Disadvantaged Communities

Garvin Heath explained how the modeling approach for traffic-air quality disadvantaged communities (TAQ-DACs) has been adjusted based on feedback from the Steering Committee. Feedback from the fifth Steering Committee meeting emphasized prioritizing major freeways and ports, and the neighborhoods of Wilmington, Pacoima and South LA. In the eleventh Steering Committee meeting, he reported, Steering Committee members recommended adjusting the modeling approach to use the Senate Bill 535 (SB 535) definition of DACs instead of CalEnviroScreen, as SB 535 includes census tracts that did not receive CalEnviroScreen scores but have been designated as DACs by the legislature. Garvin Heath emphasized that this approach better captures traffic-affected tracts near the ports.

Garvin Heath overviewed the two complementary approaches by NREL and UCLA leading to a health impact assessment. UCLA is developing zero-emission vehicle scenarios including a disparity scenario and equity (use of light-duty and light-, medium-, and heavy-duty vehicle electrification) scenario. He described that UCLA's approach uses an air quality model that considers all air quality pollution sources together and assesses ambient small particulate matter (PM2.5) and Ozone (O3). Then, he described NREL's approach, which will use the UCLA scenarios and focus on medium- and heavy-duty vehicle fleets, analyzed by neighborhood in Los Angeles.

Garvin Heath noted that the approach is roadway-focused modeling, considering air quality emissions coming from the roadways. Both teams will be using a similar health impact approach to look at mortality and morbidity outcomes based on PM2.5, O3, and nitric oxide (NO2). For mortality, he explained, the Centers for Disease Control database will provide specific baseline mortality rates for different racial and ethnic groups, which will allow the research teams to look at mortality rates as they exist today and how health impacts will change moving forward.

Garvin Heath reviewed the DAC census tracts sampling and analysis approach, noting that some DACs are affected by traffic-related pollution more than others. Developing a TAQ-DAC definition based on a subset of indicators and Steering Committee feedback is a priority for NREL, he stated. Looking at the current set of indicators, Garvin Heath noted, those highlighted in red are traffic related (see slides 15-16 in Appendix). He shared that NREL is aiming to define TAQ-DAC communities by examining the combination of indicators highlighted in red (see slides 15-16 in Appendix), with the two most common indicators being traffic impacts and diesel PM emissions.

Garvin Heath then posed the question of whether other indicators should be included in the analysis. He stated that NREL identified seven indicators, with two fixed indicators, traffic impacts and diesel particulate matter, (see slide 16 in Appendix) that were combined with all others and their permutations. NREL used the CalEnviroScreen methodology to produce a score. Additionally, NREL derived a TAQ-DAC definition for each combination of indicators and selected a combination of indicators that yielded the highest median percentile score to identify the areas with the highest scores. As a result, Garvin Heath shared, the highest CalEnviroScreen method scores came from the traffic PM indicator and the diesel PM indicator. He noted that these results were overlayed with SB 535 DACs, leading to a subset of results.

NREL Updates

Garvin Heath stated that NREL will partner with different research groups at UCLA to use a dynamic rather than static travel demand. The focus will be on light heavy-duty vehicle trucks, medium heavy-duty trucks, and heavy heavy-duty trucks, such as garbage trucks, delivery trucks, and 18-wheelers. The overall approach uses a parasynthetic approach, Garvin Heath explained, focusing on light heavy-duty vehicle trucks, medium heavy-duty trucks, and heavy heavy-duty trucks.

Garvin Heath also shared that the rates of emissions, where vehicles are traveling, and load of traffic count come from the UCLA lab, with emissions factors applied. The sample roadways included in UCLA data will highlight areas both defined as TAQ-DAC neighborhoods and some outside of those definitions. The health impact assessment approach will use the U.S. Environmental Protection Agency's BenMAP. Finally, Garvin Heath shared, after the air quality model is run, the benefits received for DACs vs. non-DACs will be considered in the analysis.

UCLA Updates

Yifang Zhu, Professor of Environmental Health Sciences at UCLA, provided an update from UCLA on the integrated transportation model (see slides 22-26 in Appendix). To model air quality, she stated that zero-emission vehicles (ZEVs) will be projected in 2035 to show how much emissions reduction can be expected and where. Yifang Zhu explained that this model can simulate vehicle movements in a multimodal network. On the map (see slide 23 in Appendix), the lines represent road segments for different transportation modes and the dots represent cars with different colors representing vehicle speed. Yifang Zhu stated that the final output from the model will be electric vehicle miles traveled for different road segments in each census tract.

Yifang Zhu presented three scenarios with specific parameters. She explained that scenario one represents the current situation, scenario two keeps electrification the same but ensures vehicles are more equitably distributed, and scenario three increases vehicle electrification. She noted that the model will also factor in off-road transportation and oil and gas industries emissions.

The emissions inventory has been completed for 2017 and projected for 2035 with different emissions in the different scenarios, Yifang Zhu shared. She explained that some pollutants don't decrease by 2035 because of increased emissions from 2017 to 2035 due to economic and population growth. Yifang Zhu highlighted that electrification could offset emissions increases from economic growth in the future. The updated was concluded with sharing that emissions changes will be applied in the atmospheric model to identify where benefits can occur in 2035.

Major Themes from Advisory Committee Questions and Discussion

- The Los Angeles City Council is looking at ending neighborhood oil drilling. Has the reduction of emissions from the ending of oil drilling been considered as part of this study?
    - Yifang Zhu: There are research studies that examine emissions from oil drilling. Mobile source emissions are factored in the model but emissions from fracking is beyond the scope of the study.

- Garvin Heath: Because of two different modeling approaches, only the UCLA model will account for changes in other sectors. NREL is focused only on vehicles. UCLA's approach does account for all sources of emissions.
- Simon Zewdu: This topic stems from the findings of the LA100 Renewable Energy Study. The project team wanted to include the impact from vehicle emissions from an equity perspective. The project team is targeting the transportation sector due to it being a major, if not the major source, of emissions in Los Angeles. Ultimately, LADWP is considering what can be done to eliminate emissions in the future.

Community Solar Siting Options

Ashreeta Prasanna, Distributed Energy and Storage Analysis Researcher with NREL, presented on potential community solar sites (see slides 28-46 in Appendix). She shared that the focus is to understand, from the technical potential perspective (technical constraints i.e. available roof areas), how much solar can be sited in the City of Los Angeles. Additionally, the project team considers how community solar can be used to provide bill reduction and resilience for DACs. Another element is to use community and LADWP feedback to identify where community solar sites should be located. She stated that the outcome informs the ranking of potential community solar sites and their potential benefits. Lastly, Ashreeta Prasanna identified Steering Committee guidance on what neighborhoods and customer types to be prioritized, including an emphasis on multifamily and rental homes, and a consideration of age and income.

Ashreeta Prasanna shared that the goal of the presentation was to provide information on solar and storage siting data and methods and prioritize sites and other datasets. She recapped why this is an important topic, explaining that community solar helps with:

- **Community wealth-building**: Solar can support jobs and local workforce development as well as create educational opportunities, build wealth, and generate investments in under-resourced communities.
- **Mitigating environmental impacts**: Solar can be located on industrially contaminated lands that cannot accommodate other uses and are too often located in under-resourced communities.
- **Community resilience**: Solar can be paired with battery storage at critical facilities to offer frontline communities resiliency benefits in the event of an extended electrical outage.
- **Siting flexibility**: Utilities can help guide projects to optimal grid locations.
- **Economies of scale**: Community solar has the potential to be more cost-effective than smaller solar arrays.
- **Federal incentives**: Starting in 2023, small community solar projects (under 1 megawatt [MW]) will qualify for a base investment tax credit (ITC) of 30% through 2033. An example is the Clean Energy Coalition Prize.

Ashreeta Prasanna then presented findings related to rooftop solar and non-rooftop solar. All technical potential data (at potential solar sites) was obtained from Chapter 4 and Chapter 5 of the LA100 Study.

Ashreeta Prasanna explained that additional processing and filtering of the data was carried out based on the following conditions:

- Sites which have the following land-use: multifamily, government-owned land, educational institutions, recreation centers, hospitals, religious institutions, other (e.g., airport, port).
- Sites with total capacity >/= 30 kilowatts (kW) (using LADWP FiTprogram lower limit).
- Total capacity at each site could include rooftop, carport/parking, and ground-mount.

Ashreeta Prasanna discussed Local Solar and Storage Output Metrics and associated examples of enabled equity strategy analyses (see slide 32 in Appendix). For example, she stated that NREL identified a list of potential sites for community solar development with geospatial coordinates, along with key metrics such as capacity potential (kW and land area), number of potential subscribers by tract, tenure, income, and DAC status. The equity strategy analysis then identified potential community solar sites and their associated technical potential, net present value (NPV) for the project developer, NPV for subscribers, and the number of customers (subscribers) served by tract, tenure, DAC status, and income bins.

Another example, Ashreeta Prasanna shared, is a ranking of community solar sites based on benefits to LADWP (economic value) and benefits to the community (ability to serve a higher percentage of low-income customers in the same tract). The equity strategy analysis, she highlighted, ranks community solar sites based on metrics identified by the Steering Committee (e.g., type or usage of building and ease of access to community members), as well as metrics identified by LADWP subject matter experts (SMEs), such as the distributed energy resources (DER) priority map.

Ashreeta Prasanna presented significant findings of potential community solar site analysis which included: 27,477 potential community solar sites identified, 4,400 MW combined solar capacity potential, and 6,400 gigawatt-hours per year generation potential.

Also noted by Ashreeta Prasanna was that not all potential community solar sites can be developed due to regulatory, ownership, or other issues, andimportant aspect to keep in mind when understanding the data takeaways. In further reviewing potential community solar sites, more than half of the potential solar sites are on multifamily buildings, followed by government-owned or other land and educational institutions, and 98% of the sites have a capacity of less than 1 MW. Ashreeta Prasanna then reviewed map images portraying data findings.

In reference to disadvantaged tracts from SB 535, Ashreeta Prasanna explained that 52% of potential sites are in disadvantaged tracts and the total potential solar capacity in disadvantaged tracts is 2,100 MW (49% of total capacity in LA) and a total potential solar capacity in historically redlined communities is 1,290 MW (29% of total capacity in LA of total capacity in LA). In reviewing map data on potential solar sites in tracts with high housing burdens and high poverty rates, Ashreeta Prasanna shared that 95% of households in disadvantaged tracts have a high housing burden (>=50%); 830 MW of potential capacity is located in disadvantaged tracts with high housing burden (greater than 80%) and high poverty rate (greater than 80%); and together this corresponds to 19% of the total potential capacity.

Ashreeta Prasanna discussed potential solar sites in LADWP Feed-in Tariff Priority Zones (FiT + Priority Zones) and recapped that 250 MW of potential solar capacity is in LADWP FiT+ Priority Zones which corresponds to 6% of the total potential capacity. An LADWP local solar "by the numbers" was then shared, including quantative data pertaining to net energy metering/solar inceptive programs (SIP), the Feed-in Tariff (FiT) program, the Feed-in Tariff Plus program, Solar Rooftops program, and the Shared Solar program.

Ashreeta Prasanna provided a demonstration of the interactive map tool, choosing between different filters on the screen to yield various results.

Major Themes from Advisory Committee Questions and Discussion

- The map appears to have some errors. Some government-owned areas identified at Port of Los Angeles are actually inPort of Long Beach.
    - Ashreeta Prasanna: The map is from the tax assessor data set. This is what is included in the map, but NREL can take into account community and LADWP input to make corrections.
- Covered sidewalks with solar in South LA is a great idea.
    - Ashreeta Prasanna: The current analysis doesn't include covered sidewalks. NREL can begin analysis if communities have interest in it.
- Has there been prioritization to develop projects in communities such as Pacoima and Wilmingtonthat experience greater pollution burden?
- It is important for communities to be involved in initiating shared solar programs.
- Shade structures or canopies would greatly address the heat island effect in Council District 9.
- Making recreation centers more accessible in terms of resiliency is of significant interest.
    - Ashreeta Prasanna: The project team would like to identify community-based organizations to directly work with. What is the process for starting potential development and what are the barriers?
- Look at Neighborhood Councils in the areas that would benefit the most from community solar.
- Some organizations to conduct outreach with include Trust South LA, SLATE-Z, Community Coalition, and Strategic Actions for a Just Economy (SAJE).
- Commercial and industrial land uses aren't being considered. In some research with tax assessor data and findings, it was found that commercial and industrial land changes infrequently. Why are these land uses not considered?
    - Ashreeta Prasanna: NREL has the data to include commercial and industrial land parcels. They were not included in the summaries primarily because it was assumed that if these sites were developed, the solar development would be used to offset the consumption of business located on these sites rather than for community solar. If NREL gets more information, these can be included in the working list of sites.

- Was there groundtruthing done in this study to see where solar can be put? What is the strategy to groundtruth and find out where solar can can be feasibly built in a community?
    - Ashreeta Prasanna: This is just stage one of the analysis. NREL is now looking to hear back from communities and community-based organizations. NREL can have meetings with groups and organizations regarding specific sites.
- Have photovoltaic modules over ocean water been studied? At the Los Angeles port, it is necessary for light to travel through the water column to maintain shallow water plants (eelgrass) for food or habitat for endangered bird species. This is not a concern for a drinking water reservoir or similar bodies of water.
- There is a big difference between technical potential and raw economic potential and what is realistically developable.
- As you do the ground-truthing for community solar, engagement with the City's Climate Emergency Mobilization Office is encouraged.

Jobs and Workforce Development

Abel Valenzuela, Professor of labor studies, urban planning and Chicana/o and Central American studies, Director of UCLA's Institute for Research on Labor and Employment and Interim Dean of UCLA's Division of Social Sciences, provided an introduction about the UCLA team's credentials and framework of the study. He then gave a preview of what would be overviewed during the presentation including the Green Jobs Historical Calculator, LADWP Jobs and Regional Equity, Protecting Green and LADWP Jobs, and Workforce Development and Community Engagement Challenges.

Raul Hinojosa-Ojea, Associate Professor in the UCLA Department of Chicana and Chicano Studies, talked in greater detail about the subject (see slides 49-64 in Appendix) and reported that the total number of green jobs has been growing more rapidly compared to that of non-green jobs in the City of Los Angeles since 2011. Raul Hinojosa-Ojea discussed demographic breakdowns of these figures and LADWP power sector employee data statistics.

In order to protect LADWP green jobs, Raul Hinojosa-Ojea specified that LADWP can focus on sustainable and equitable investments by estimating baseline inequality gaps, employment impacts of LADWP, projected demographic changes, and necessary workforce development investments. Raul Hinojosa-Ojea overviewed the methodology for estimating such investments and employment impacts by LADWP, and noted the Wilmington research is underway and can be used as a future case study for how to address workforce development challenges.

Raúl Hinojosa-Ojea then discussed the principles of the High Road workforce system to target quality jobs that provide economic security for workers and communities. He then reviewed Steering Committee feedback (see slide 64 in Appendix), noting sentiments to ground truth in communities to better understand barriers for communities of color to access jobs and recommendations for the project team to look at the SEED workforce development program from LA Metro.

Major Themes from Advisory Committee Questions and Discussion

- What is the plan to raise engagement related to the lack of engineering and electrical jobs? It would be worth considering going beyond schools to also partner with Hollywood, the gaming community, and others.
    - Raúl Hinojosa-Ojea: UCLA can look at how the broader economy can be potentially affected and the broader transition to a green economy related to all sectors. We will look at contractors with LADWP. A lot of work going forward will be done with contractors and UCLA will think about other ways to look at the LADWP workforce.
    - Simon Zewdu: LADWP is developing its own integrated resource plan to identify staffing needed to maintain the system and in the transition to clean energy. The LADWP Board of Commissioners recently had a conversation discussing the hiring plan and future workforce development needs.
- How do retirements intersect with this effort?
    - Simon Zewdu: Retirement is moderate. Once LADWP has done its internal assessment, this information will be shared with UCLA.
- Do you see organizations like Los Angeles Cleantech Incubator (LACI) creating capacity for the contractors?

Wrap Up and Next Steps

Joan Isaacson stated that the next Advisory Committee meeting would take place in two months and that subsequent meetings will occur every other month on the fourth Wednesday from 10:00 a.m. – 12:00 p.m. She also explained that agenda items will include legal and regulatory constraints, household energy modeling approach, electric vehicle charging infrastructure, and rate analysis/affordability modeling. Joan Isaacson thanked Advisory Committee members for their time and continued participation in the meetings.

Denis Obiang, Manager of Transmission Planning at LADWP and member of the project management team for the LA100 Equity Strategies, thanked the Advisory Committee members for participating in the meetings and in the LA100 Equity Strategies effort. He noted that LADWP has made significant accomplishments and improvements because of the work of UCLA, NREL, and the project team, as well as the efforts of communities and both Steering and Advisory Committees. Denis Obiang emphasized the importance of incorporating community input at LADWP that will positively impact Los Angeles in the coming years. He concluded by thanking members for their participation in a process that will impact the future of Los Angeles.

LA100 EQUITY STRATEGIES

Appendix

Advisory Committee Meeting #6
October 26, 2022
Presentation Slides

LA100 Equity Strategies
Advisory Committee Meeting #6
October 26, 2022

LA DWP

NREL Transforming ENERGY

UCLA

Los Angeles Department of Water & Power (LADWP)
Project Leads

Simon Zewdu
Director
Transmission Planning,
Regulatory, and Innovation Division

Pjoy T. Chua, P.E.
Assistant Director
Transmission Planning, Regulatory,
and Innovation Division

Steve Baule
Utility Administrator
LA100 Equity Strategies Oversight
& UCLA Contract Administrator

Stephanie Spicer
Community Affairs Manager

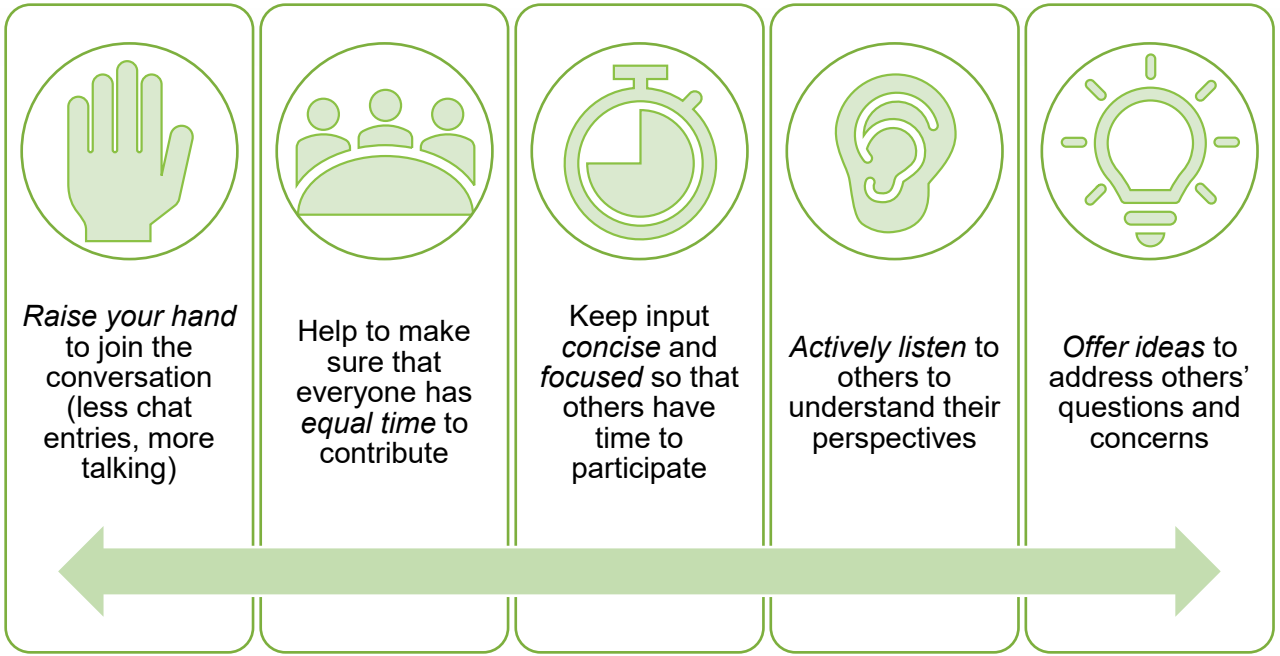
Brian Wilbur

Senior Assistant General Manager of
Power System Construction, Maintenance, and Operations at LADWP

Agenda

Start Time	
10:00 a.m.	Welcome
10:05 a.m.	Meeting Purpose and Agenda Overview
10:10 a.m.	Community Listening Sessions Summary
10:20 a.m.	Air Quality and Health Modeling
10:50 a.m.	Potential Community Solar and Storage Siting Options
11:20 a.m.	Green Jobs & Workforce Development
11:55 a.m.	Wrap Up and Next Steps

Our Guide for Productive Meetings



Community Listening Sessions Update

Dr. Paty Romero-Lankao, NREL

Listening Sessions

Spaces of Collaboration with Community Participants

From the *What* to the *How*

The What

First Round :

We asked five small groups of Angelenos ***what*** **energy justice means to them**, including their:

(1) vision for a just energy future in their community

(2) understandings of factors influencing energy inequities in their community

(3) suggested energy strategies to redress these inequities.

The How

Second Round :

The next 10 listening sessions aim to **understand *how* to:**

(1) rectify the challenges shared in our last sessions

(2) achieve the energy equity goals community members have outlined.

Listening Sessions

Highlights

San Fernando Valley

- With Pacoima Beautiful
- 12 participants
- **Key highlights**
  - **Access & Use** | Rental conditions thwarting *access/eligibility* to LADWP benefits; financial institutions thwarting *use* of existing benefits
  - **Institutional Action** | Improve program design
  - **Collective Action** | Request for community-led program design
  - **Continuing the Loop** | Appreciated feedback loop

South LA

- With SLATE-Z
- 6 participants
- **Key highlights**
  - **Fit** | Tailor engagement strategies to different groups; i.e., social media for the youth versus door-to-door for the elderly
  - **Access** | Request for educational opportunities for youth in schools + adults
  - **Safety** | Request for public street lighting and more shade
  - **Continuing the Loop** | Requested we return

Listening Sessions

Round Two

10 In-Person Listening Sessions

- Two sessions in September 2022
  - Communities of Focus: San Fernando Valley, South LA #1
- Three sessions in October 2022
  - Communities of Focus: South LA #2, Two in Harbor
- Two Sessions in November 2022
  - Communities of Focus: South LA #1, East LA
- Three Sessions in December 2022
  - Communities of Focus: East LA, South LA #2, San Fernando Valley

Air Quality and Health

Update on medium- and heavy-duty vehicle emissions impact modeling and output metrics

Dr. Garvin Heath, NREL
Dr. Yifang Zhu, UCLA

Air Quality & Health Modeling Overview

Questions to Be Answered with NREL and UCLA collaboration:

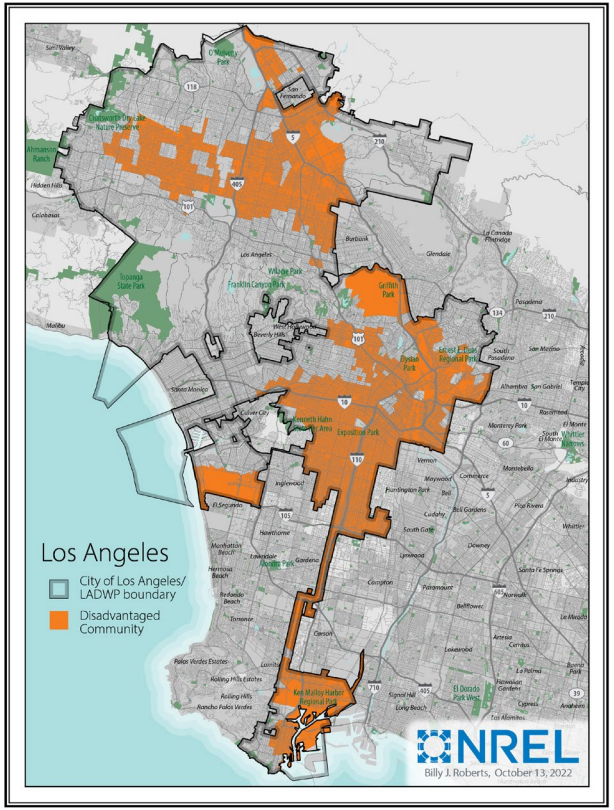
- Electrification of *which types of vehicles (light-, medium-, and heavy-duty)* and *where* would provide the greatest health benefits in disadvantaged communities?
- Will *vehicle electrification* provide greater air quality and health improvements in disadvantaged communities?

Outcomes:

- Answers will inform vehicle electrification incentives and program targeting, and infrastructure investment locations and sequencing.

Steering Committee Guidance:

- Which neighborhoods and roads should be prioritized?
  - Feedback from Steering Committee meeting #5: major freeways, Ports/LAX corridors, Wilmington, Pacoima, South LA
  - Feedback from SC meeting #11: use SB535 definition of DAC rather than CalEnviro Screen 4.0 because it better captures traffic-affected tracts nears Ports



Air Quality & Health Modeling Overview

UCLA Scenarios

- Zero-Emission Vehicle disparity scenario
- Zero-Emission Vehicle equity scenario
  - Light-duty
  - Light-, medium-, & heavy-duty

Air Quality Modeling

- Model ambient $PM_{2.5}$ and O_3 in 2035 using WRF-Chem (high resolution of about 1 km by 1 km)

NREL Scenarios

- UCLA-developed scenarios
- Medium- and heavy-duty vehicle classes at different electrification levels across a wide range
- Each scenario in many different LA neighborhoods,

Air Quality Modeling

- Near-roadway air quality model (<100 m spatial resolution)

Health Assessment

- Racial/ethnic specific baseline mortality rates
- Mortality due to $PM_{2.5}$, due to O_3
- Monetized health benefits at a community level

Goals of today's presentation

Discuss:

- Which disadvantaged community (DAC) census tracts to use for sampling and analysis
  - Some DAC tracts are affected by traffic related pollution more than others
  - Develop a "Traffic-Air Quality DAC" (TAQ-DAC) definition based on subset of CalEnviroScreen indicators and Steering Committee feedback
- NREL update
  - Air quality modeling and equity analysis data sources and methods
- UCLA update
  - Emissions projection in 2035

Traffic-Air Quality Disadvantaged Communities (TAQ-DAC)

Current set of indicators used in CalEnviroScreen 4.0 or its derivatives

Pollution Burden		Population Characteristics	
Exposure	• Ozone and particulate matter ($PM_{2.5}$) concentration • Diesel particulate matter (PM) emissions • Drinking water contamination • Children's lead risk from housing • Pesticide use • Toxic release from facilities • Traffic impacts	**Sensitive population**	• Asthma emergency department visits • Cardiovascular disease • Low birth-weight infants
Environmental effects	• Cleanup sites • Groundwater threats • Hazardous waste • Impaired water bodies • Solid waste sites and facilities	**Socioeconomic factors**	• Educational attainment • Housing-burdened low-income households • Linguistic isolation • Poverty • Unemployment

Only some indicators (marked here in red) are traffic related

Which DAC tracts are more affected by traffic-related air pollution?

Pollution Burden		Population Characteristics	
Exposure	• Ozone concentration • $PM_{2.5}$ concentration • Diesel PM emissions • Traffic impacts	Sensitive population	• Asthma emergency department visits • Cardiovascular disease • Low birth-weight infants

- How do we select which of these indicators to analyze for traffic-related air quality-specific benefits?
- Two obvious choices: “traffic impacts” and “diesel PM emissions”
- Does including other indicators provide more insight?

How do we identify tracts most affected by traffic air pollution? (1)

IDENTIFY

- Consider all traffic/air quality-related indicators in CalEnviroScreen (7)
- Fix two indicators
  - traffic impacts
  - diesel PM emissions
- Combine with other *population* and *pollution* indicators in all combinations

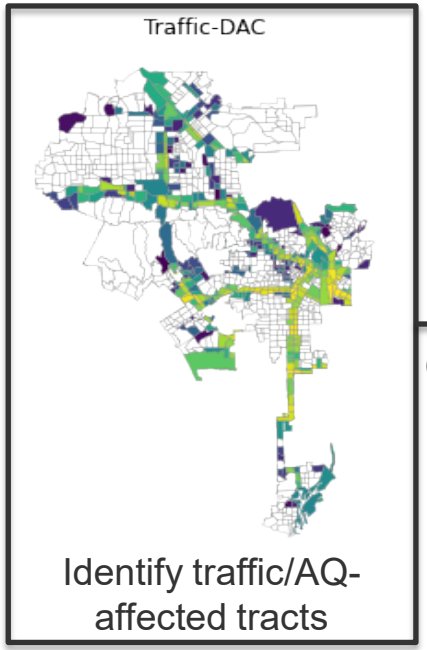
MODEL

- Using CalEnviroScreen 4.0 methodology, calculate score for each tract in California
- Derive a traffic/AQ-affected disadvantaged community classification for each combination

ANALYZE and SELECT

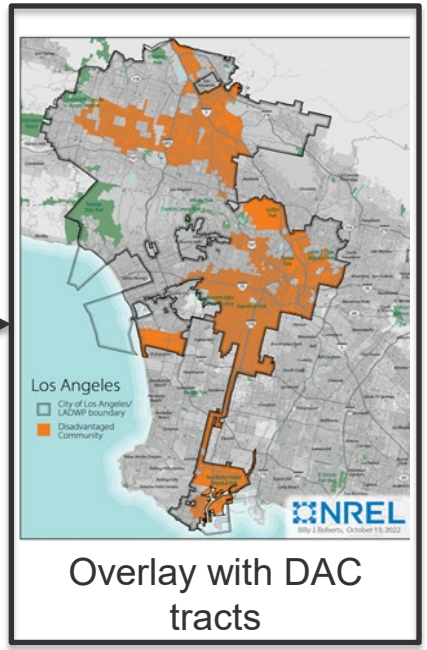
- Analyze tracts (intersecting with CalEnviroScreen 4.0) for all 32 combinations for their scores
- **Select the combination that yields highest median CalEnviroScreen percentile score**

Traffic-affected DACs for sampling and analysis



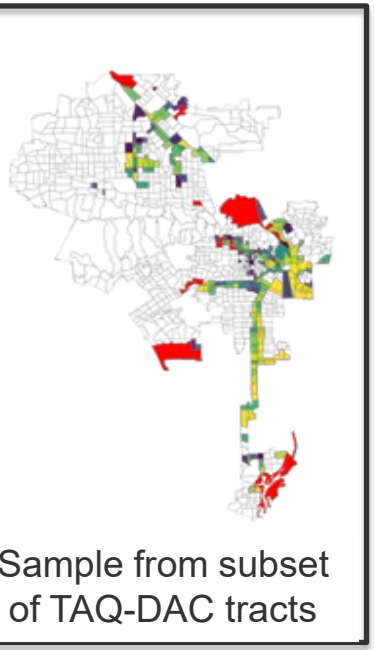
Identify traffic/AQ-affected tracts

select only from



Overlay with DAC tracts

=



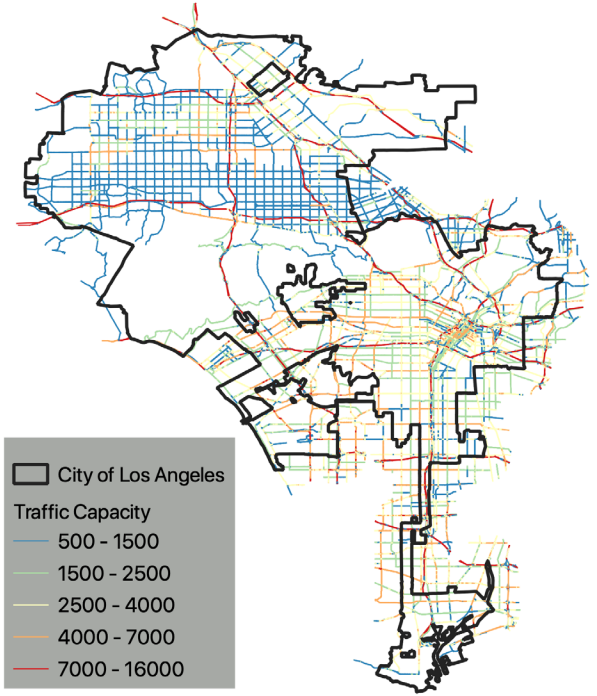
Sample from subset of TAQ-DAC tracts

Based on Steering Committee and UCLA feedback, NREL revisited the traffic-impacted disadvantaged community mapping and realized new census tracts—designated by California Senate Bill 535—were missing. These census tracts have now been added, resulting in the additional census tracts in red and greater representation of the LAX area and Wilmington neighborhood for the analysis.

NREL updates

Traffic Activity Data

- We are expecting to use vehicle activity projection data based on UCLA Mobility Lab travel demand modeling.
- Vehicle types included:
  - light heavy-duty trucks (LHDT)
  - medium heavy-duty trucks (MHDT)
  - heavy-heavy duty trucks (HHDT)
  - Light duty vehicles (LDVs)
- UCLA's dynamic model is likely better than Sothern California Association of Governments model which is static modeling
  - Can affect parameters such as speed and congestion which can affect emissions

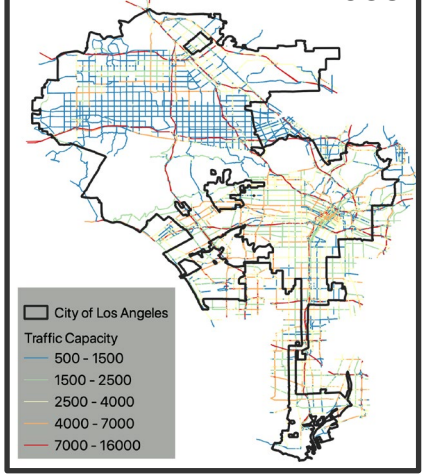


Putting it all together: strategic insights from health and EJ analysis

Test wide range of potential electrification proportions (HHDT, MHDT, LHDT)

Emission rates (EMFAC2021)

Traffic data in 2035



Near-road air quality modeling on sample of road segments in and out of TAQ-DACs

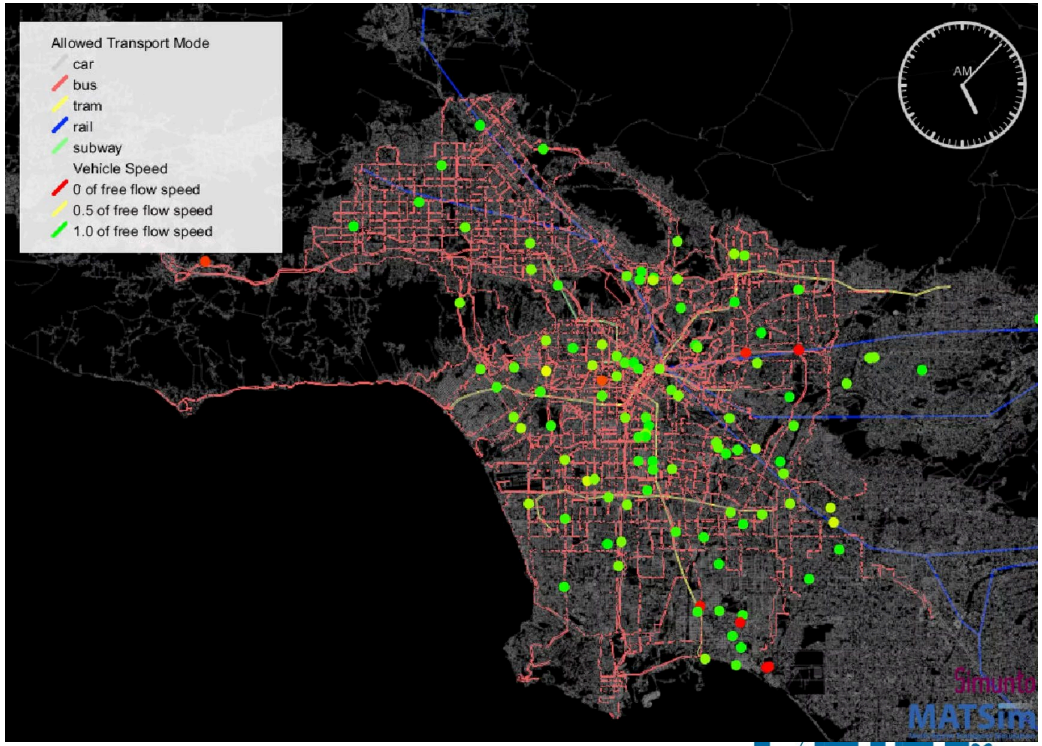
Health impacts assessment using USEPA's BenMAP

Environmental justice analysis (DAC vs. non-DAC)

UCLA Updates

Integrated Transportation Model

- Simulating explicit vehicle movement in a multimodal network with the congestion impact
- Incorporating all types of vehicle
  - Passenger cars
  - Light/Medium/Heavy duty trucks
  - Transit vehicles



Scenarios

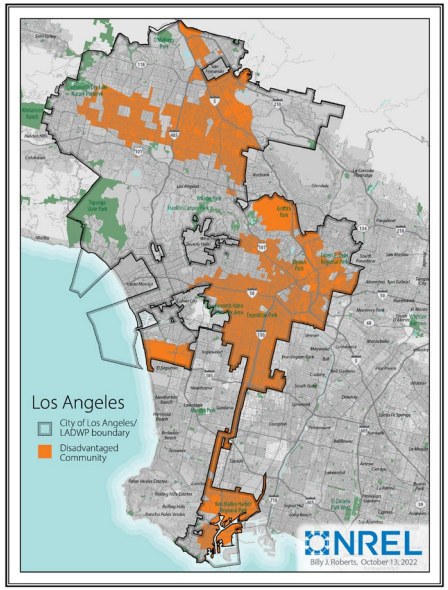
	Scenario 1	Scenario 2	Scenario 3
Name	2035 ZEV Disparity	2035 ZEV Equity	2035 ZEV Equity (more MD-HD) (MSS)
Energy Profile	LA100 Early & No Biofuel – 100% Clean Energy		
	On-road Transportation Electrification Profile		
Light-duty	50%	50%	50%
Medium-duty	19%	19%	22%
Heavy-duty	10%	10%	39%
School and urban buses	100%	100%	100%
	On-road Transportation Emission Spatial Distribution		
Passenger Vehicle Medium-duty Heavy-duty School and urban buses	Emission reduction map based on (1) ZEV ownership and (2) the MATSim simulated trips	Equally distributed	Equally distributed
	ZEV Fleet Profile (LDV / MDV / HDV)		
PHEV	25% / 0% / 0%		
BEV	67% / 100% / 100%		
FCEV	8% / 100% / 100%		
	Off-road Transportation		
	EMFAC 2035 Original	EMFAC 2035 Original	MSS
	Oil & Gas Industry		
Demand Reduction	Scale down based on ZEV population		

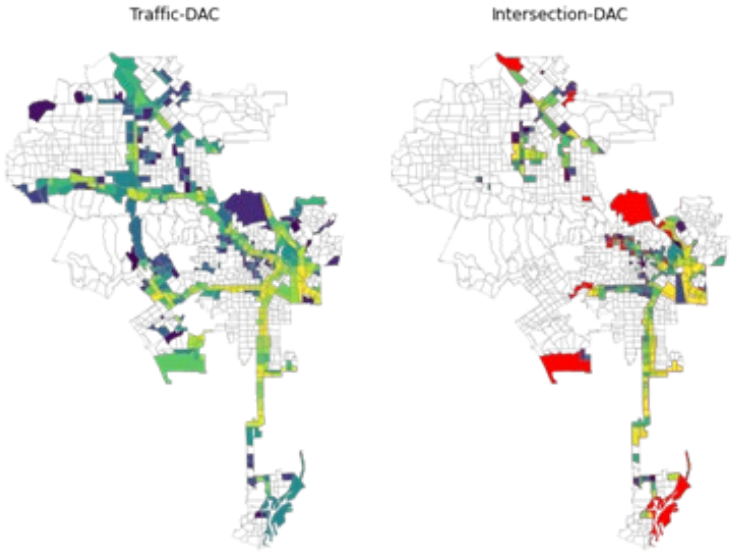
MSS: Mobile Source Strategy
PHEV: Plug-in Hybrid Electric Vehicle
BEV: Battery Electric Vehicle
FCEV: Fuel-cell Electric Vehicle
LDV: Light-duty Vehicle
MDV: Medium-duty Vehicle
HDV: Heavy-duty Vehicle

LA County Emission Inventory Change (2017 vs. 2035)

Scenarios	CO	NH_3	NOx	PM_{10}	$PM_{2.5}$	ROG	SOx
BASE - 2017 (tons / day)	1000	46	270	89	34	303	13
ZEV – 2035 (tons / day)	452	47	143	89	32	217	12
MSS - 2035 (tons / day)	431	46	101	89	31	216	12
Scenario Comparison							
(ZEV-BASE)/BASE	-55%	1.5%	-47%	0.6%	-5.7%	-28%	-4.0%
(MSS-ZEV)/ZEV	-4.5%	-1.3%	-29%	-0.3%	-1.6%	-0.4%	-0.8%

Air Quality & Health: Medium- and Heavy-Duty Vehicle Electrification Update





Based on Steering Committee and UCLA feedback, NREL revisited the traffic-impacted disadvantaged community mapping and realized new census tracts—designated by California Senate Bill 535—were missing. These census tracts have now been added, resulting in the additional census tracts in red and greater representation of the LAX area and Wilmington neighborhood for the analysis.

Q&A

Potential Community Solar and Storage Siting Options

Ashreeta Prasanna, NREL
Jane Lockshin, NREL

Project Overview

Questions to be answered:

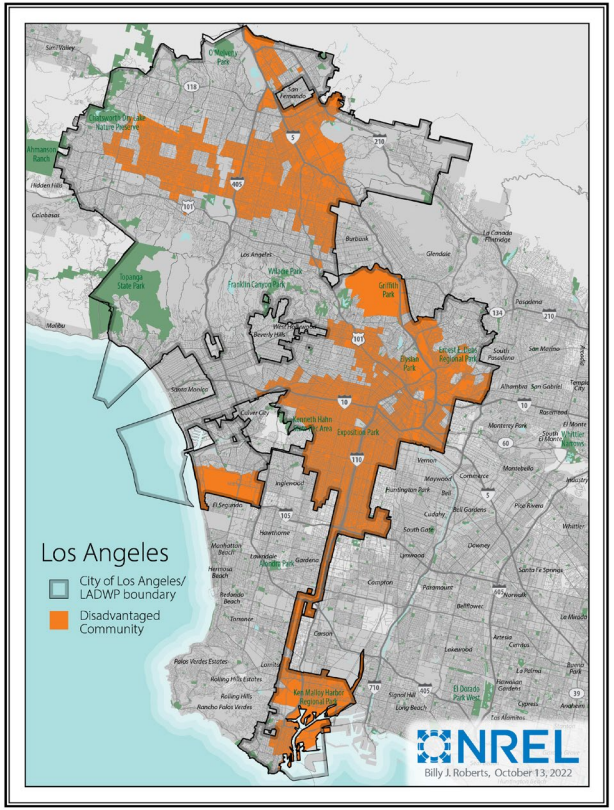
- How much community solar can be sited in the City of LA and how can it be used to provide bill reduction or resiliency benefits to underserved communities or low-income customers?
- Where should community solar be sited based on community priorities?

Outcomes:

- Answers will inform ranking of potential community solar and/or resiliency centers based on their location and potential benefits provided to underserved communities or low-income customers.

Steering Committee guidance:

- Which neighborhoods and customer types should be prioritized?
- Feedback from prior Steering Committee meetings:
- Recreation centers, other public buildings which are accessible to the public.
  - Multifamily and renters should be prioritized.
  - Age and income of customers should also be considered.



Goals of Today's Presentation

- Provide information on solar and storage siting data and methods.
- Prioritize sites and other datasets.

Importance of Local Community Solar

Community wealth-building. Solar can support jobs and local workforce development as well as create educational opportunities, build wealth, and generate investments in under-resourced communities.

Mitigating environmental impacts. Solar can be located on industrially contaminated lands that often cannot accommodate other uses and are too often located in under-resourced communities.

Community resilience. Solar can be paired with battery storage at critical facilities to offer frontline communities resiliency benefits in the event of an extended electrical outage.

Source: World Resources Institute, "How Community Solar Can Benefit Low- and Moderate-Income Customers."

Importance of Local Community Solar

Siting flexibility. Utilities can help guide projects to optimal grid locations.

Economies of scale. Potential to be more cost-effective than smaller solar arrays.

Federal incentives such as Clean Energy Coalition Prize. Starting in 2023, small community solar projects (under 1 megawatt [MW]) will qualify for a base investment tax credit (ITC) of 30% through 2033.

Additional Inflation Reduction Act (IRA) credits:

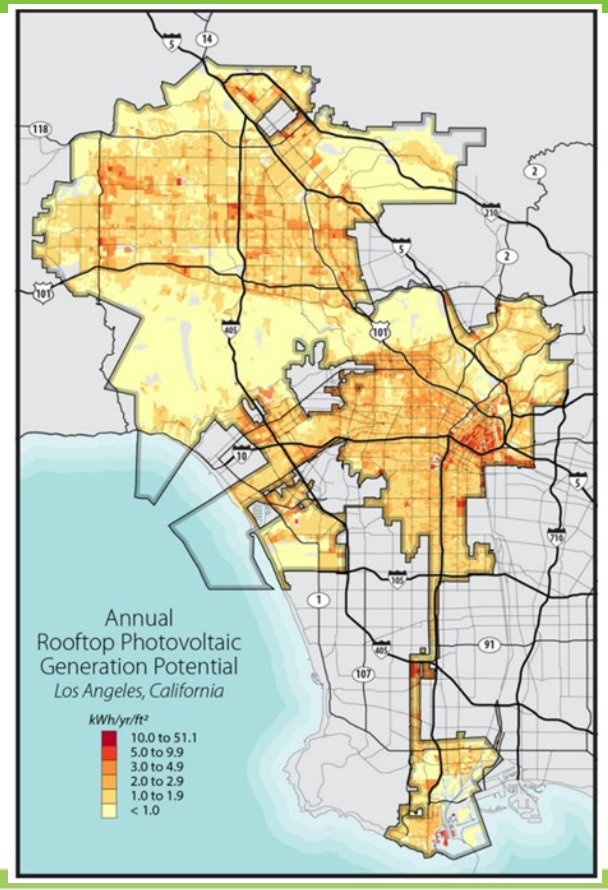
+ 10% for meeting domestic content specifications
+ 10% if at a brownfield site or in a community directly impacted by fossil fuels
+ 10% if in a low-income community or on tribal land (by application)
+ 20% if part of a Low-Income Residential Building Project or Qualified Low-Income Economic Benefit Project (by application)

Source: World Resources Institute, "How Community Solar Can Benefit Low- and Moderate-Income Customers," and DOE's Solar Energy Technology Office, "Reaching for the Solar Future: How the Inflation Reduction Act Impacts Solar Deployment and Expands Manufacturing."

Data – Rooftop Solar

Identification of solar rooftop potential relies on lidar data sets provided by the U.S. Department of Homeland Security's Homeland Security Infrastructure program for the larger Los Angeles Metropolitan Area collected in 2007 and 2013.

Technical potential estimates are supplemented by parcel-level tax assessor data for Los Angeles County (Los Angeles County 2017).

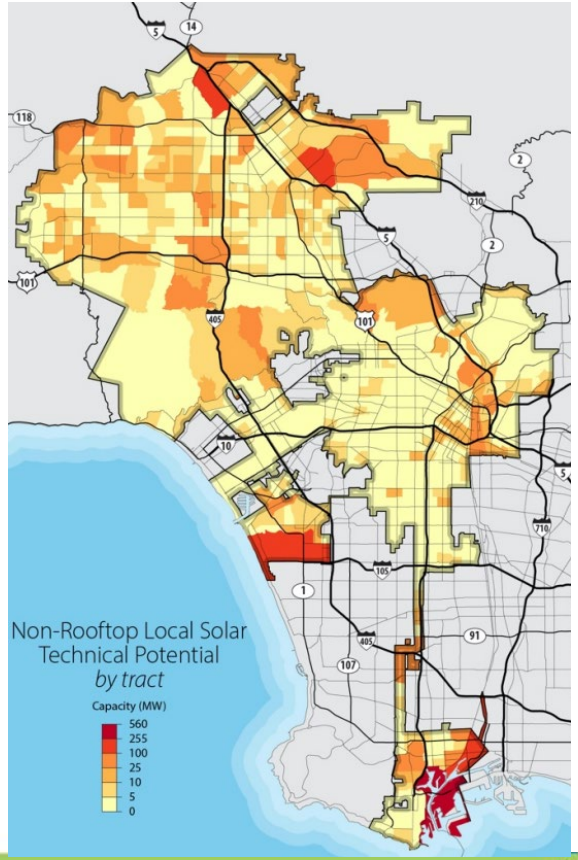


Source: Chapter 4: Customer-Adopted Rooftop Solar and Storage in *The Los Angeles 100% Renewable Energy Study*.

Data – Non-rooftop Solar

Identification of non-rooftop potential relies on County-, City-, and LADWP-provided datasets. The technical potential for non-rooftop local solar is calculated by excluding land that is unsuitable for local solar development. Some of the criteria for exclusions are listed below, and additional exclusions are described in *U.S. Renewable Energy Technical Potentials: A GIS-Based Analysis*:

- Existing developments (buildings, streets, bike paths, airport runways)
- Land cover (water, wetlands, forests, shrubland, farmland)
- Parks and recreational sites
- Steep terrain (slope greater than 10%)
- Landmarks (schools, cemeteries, stadiums, etc.)
- Excessively shaded areas
- Non-parking-lot lands.

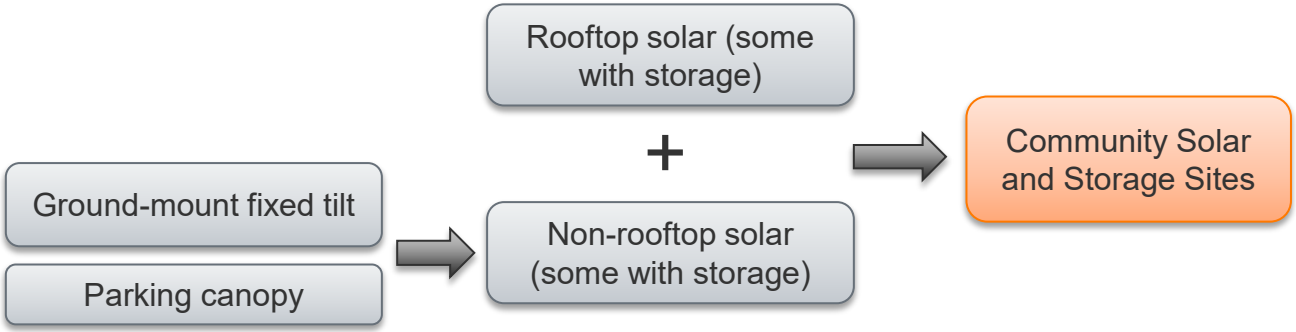


Source: Chapter 5: Utility Options for Local Solar and Storage in *The Los Angeles 100% Renewable Energy Study*.

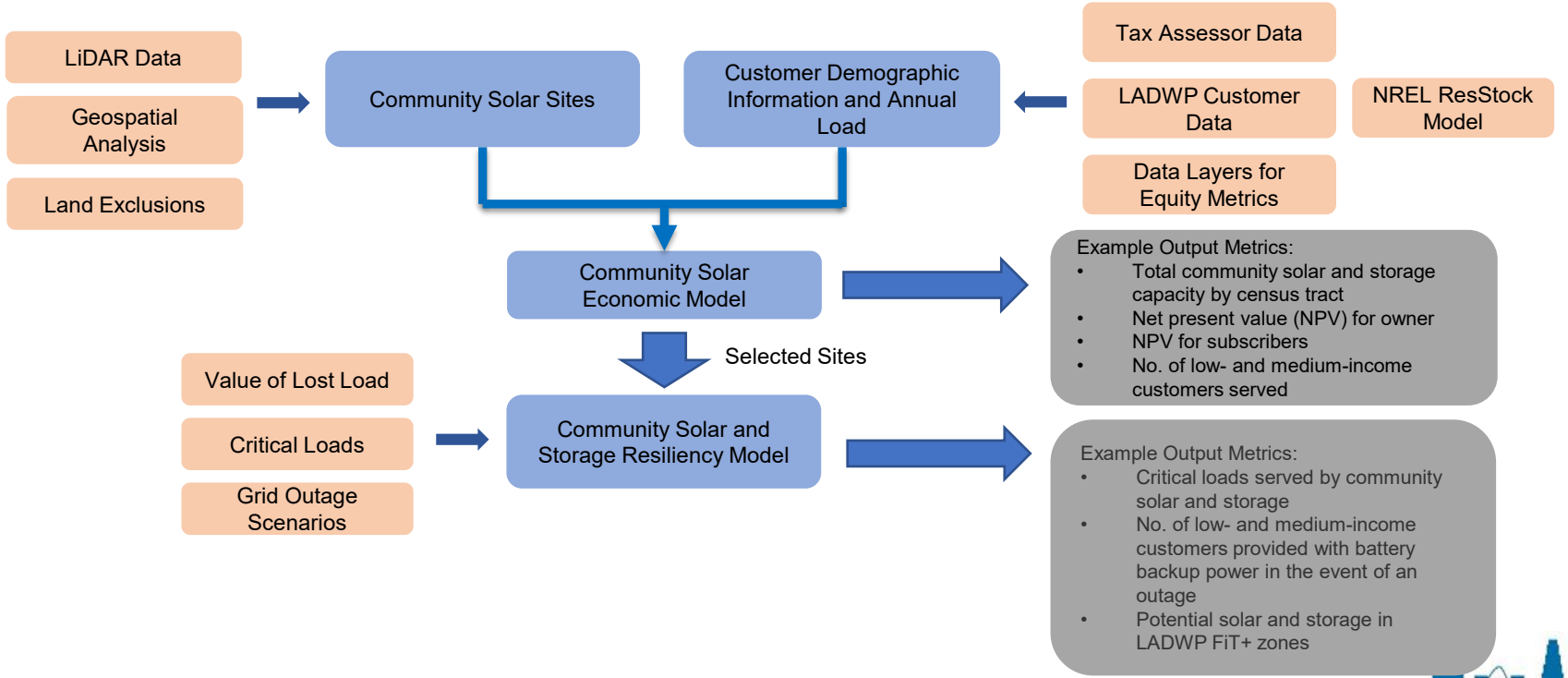
Data

All technical potential data (at potential solar sites) is obtained from the LA100 Study (described in Chapter 4 and Chapter 5). Additional processing and filtering of the data is carried out based on the following conditions:

- Sites which have the following land-use: multifamily, government-owned land, educational institutions, recreation centers, hospitals, religious institutions, other (i.e., airport, port).
- Sites with total capacity >/= 30 kilowatts (kW) (using LADWP FiT program lower limit).
- Total capacity at each site could include rooftop, carport/parking, and ground-mount.



Analysis Overview



Defining Potential

This analysis identified **technical potential** or the ***very upper limit*** of what is possible if ***every*** suitable site were developed for solar. Feasibility constraints not considered include:

- Economics
- Market realities
- Constructability
- Legal/regulatory
- Roof age
- Roof structural integrity
- Property owner interest
- Competing land uses
- Etc.

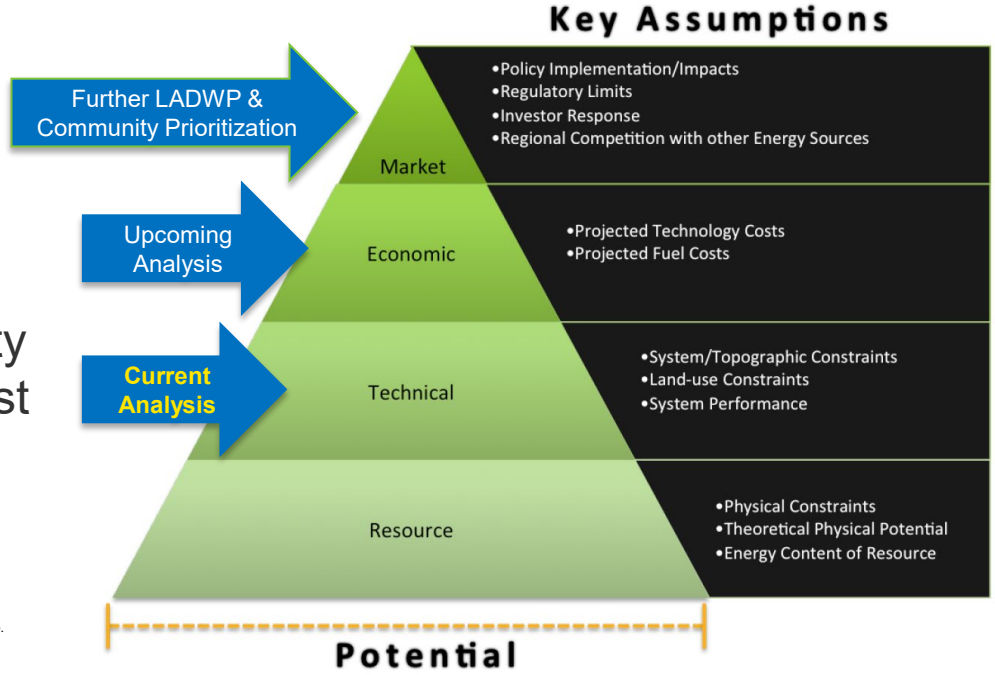


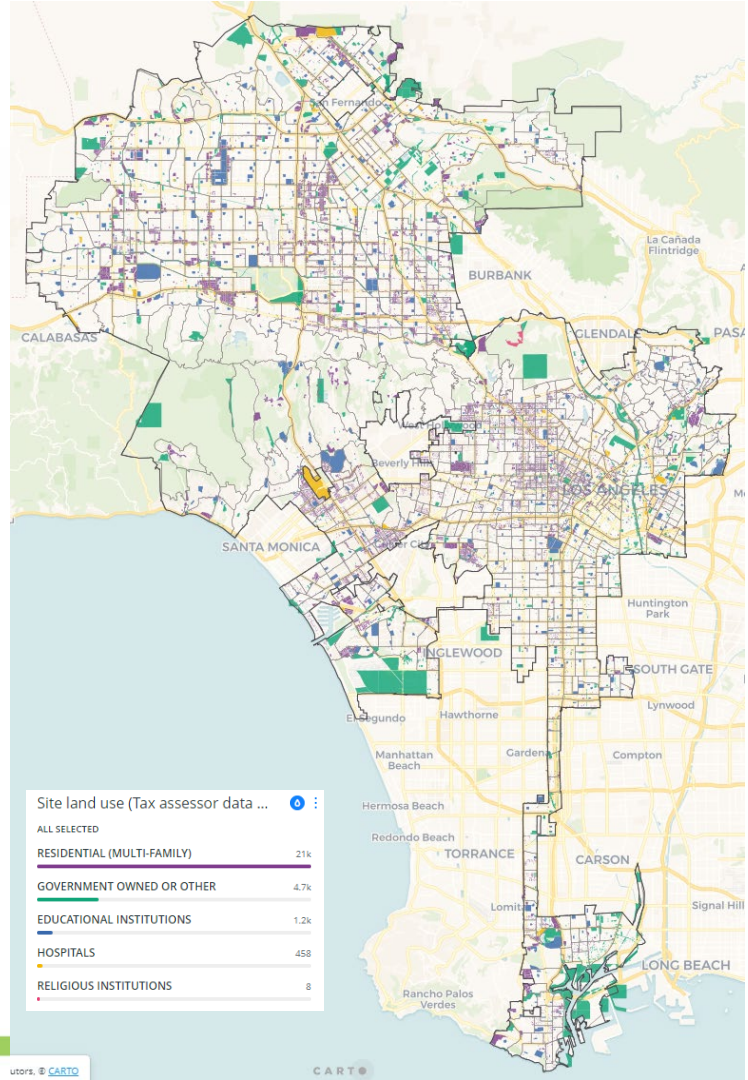
Figure source: Lopez, Anthony, Billy Roberts, Donna Heimiller, Nate Blair, and Gian Porro. 2012. NREL. "U.S. Renewable Energy Technical Potentials: A GIS-Based Analysis." https://www.nrel.gov/docs/fy12osti/51946.pdf.

Potential Community Solar Sites

- **27,477** potential community solar sites identified
- **4,400 MW** combined solar capacity potential
- **6,400** gigawatt-hours per year generation potential

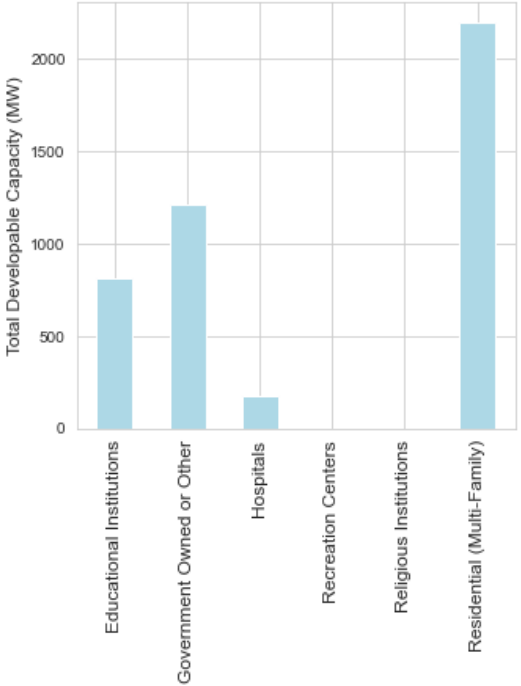
If all potential community solar sites were developed, they would produce the equivalent of 100% of annual electricity consumption of all renter occupied households in the city of LA (assuming an average consumption of 5,000 kWh per household).

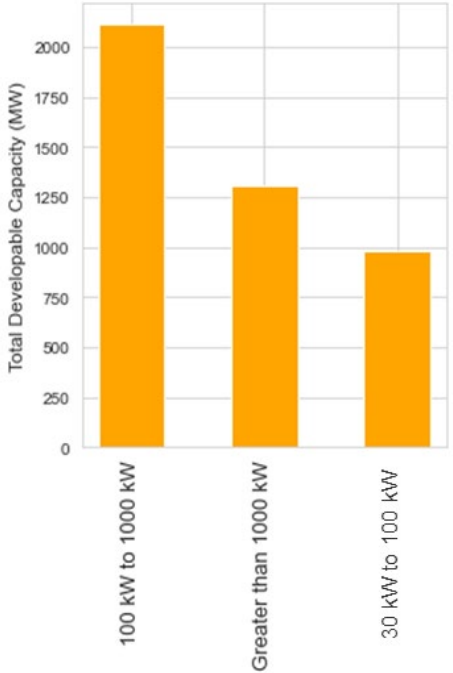
Not all potential community solar sites can be developed due to regulatory, ownership, or other issues.



Potential Community Solar Sites

- More than half of the potential solar sites are on multifamily buildings, followed by government owned or other land and educational institutions.
- 98% of the sites have capacity less than 1 MW.

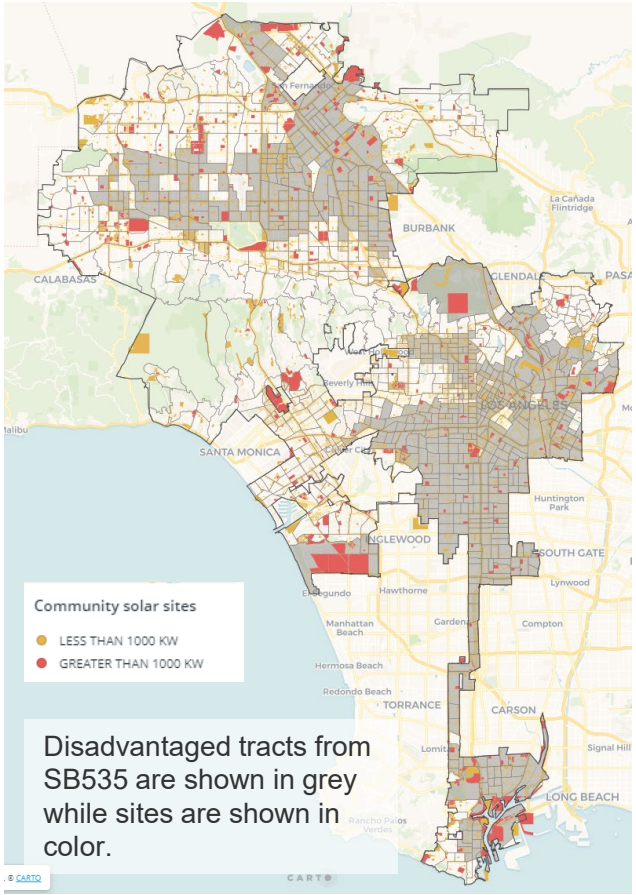


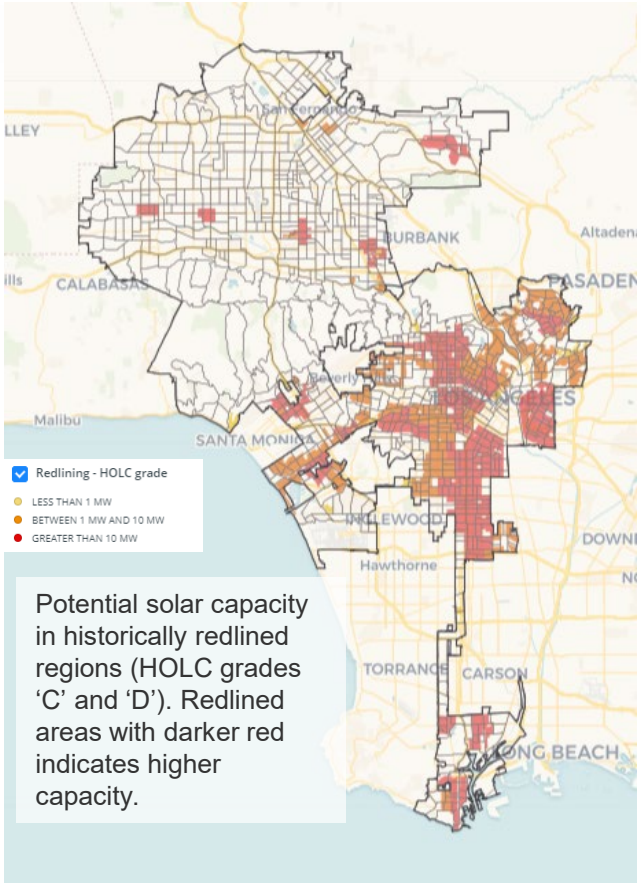


Land Use	No. of Sites	Capacity (MW)	Generation (GWh/yr)
Residential (Multi-Family)	21,077	2,195	3,329
Government Owned or Other	4,602	1,167	1,860
Educational Institutions	1,214	815	1,020
Hospitals	458	179	199
Recreation Centers	118	46	55
Religious Institutions	8	1.1	2.4
Total	27,477	4,400	6,400

Type of Installation	Capacity (MW)
Ground-mount solar	866
Carport solar	947
Rooftop solar	2,591
Storage (sited with solar)	524

Potential Solar Sites in Disadvantaged Tracts & Redlined Areas





Disadvantaged tracts (SB 535)

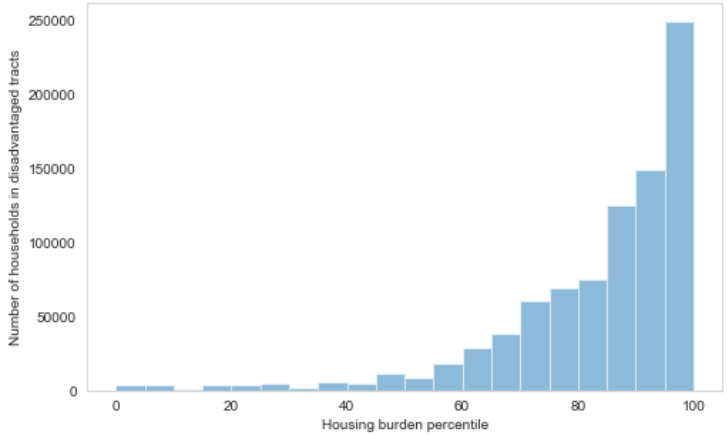
- 52% of potential sites are in disadvantaged tracts (SB 535).
- Total potential solar capacity in disadvantaged tracts is 2,100 MW (49% of total capacity in LA).

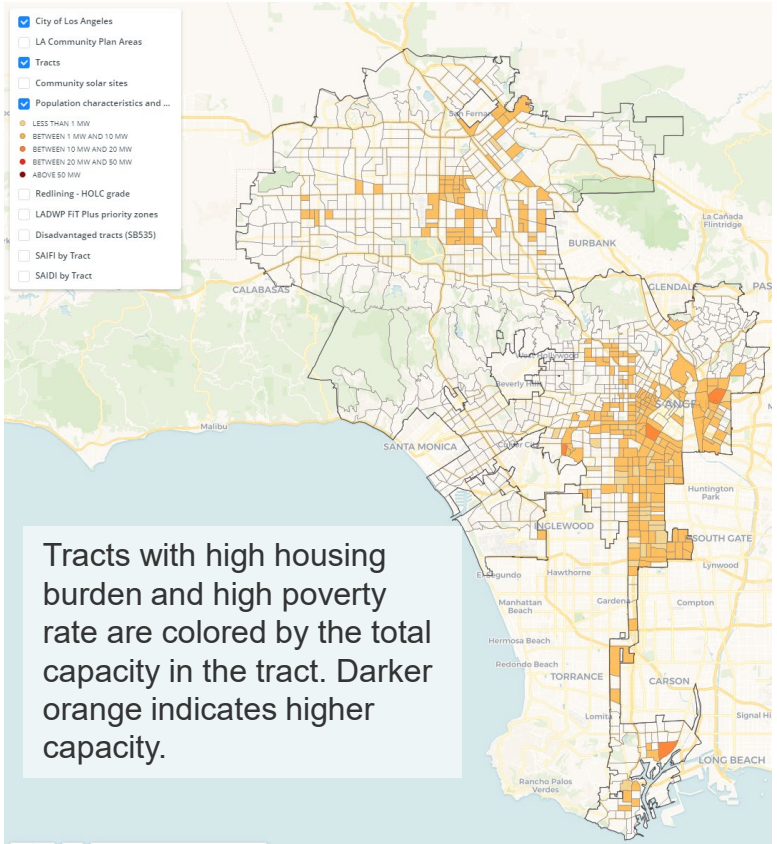
Historically redlined areas

- 57% of the sites are in historically redlined areas (areas designated C or D).
- Total potential solar capacity in historically redlined communities is 1,290 MW (29% of total capacity in LA of total capacity in LA).

Potential Solar Sites in Tracts with High Housing Burdens and High Poverty Rates

- 95% of households in disadvantaged tracts have high housing burden (>=50%). (Calculated from ACS 2019 data)
- 830 MW of potential capacity is in disadvantaged tracts with high housing burden (greater than 80%) and high poverty rate (greater than 80%).
- This corresponds to 19% of the total potential capacity.

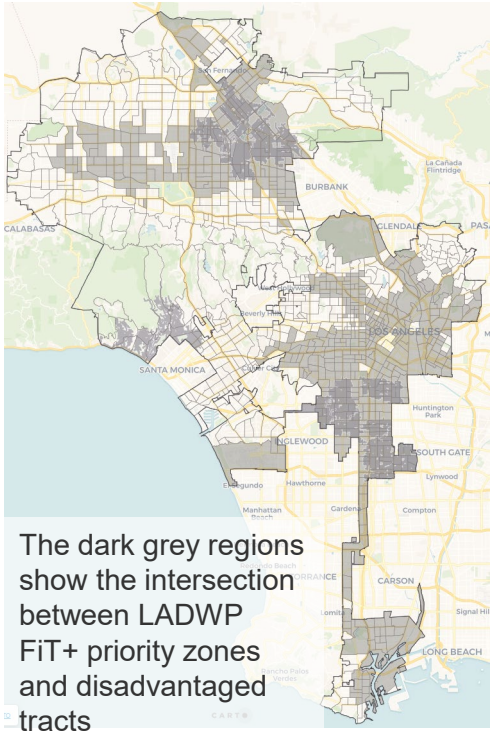




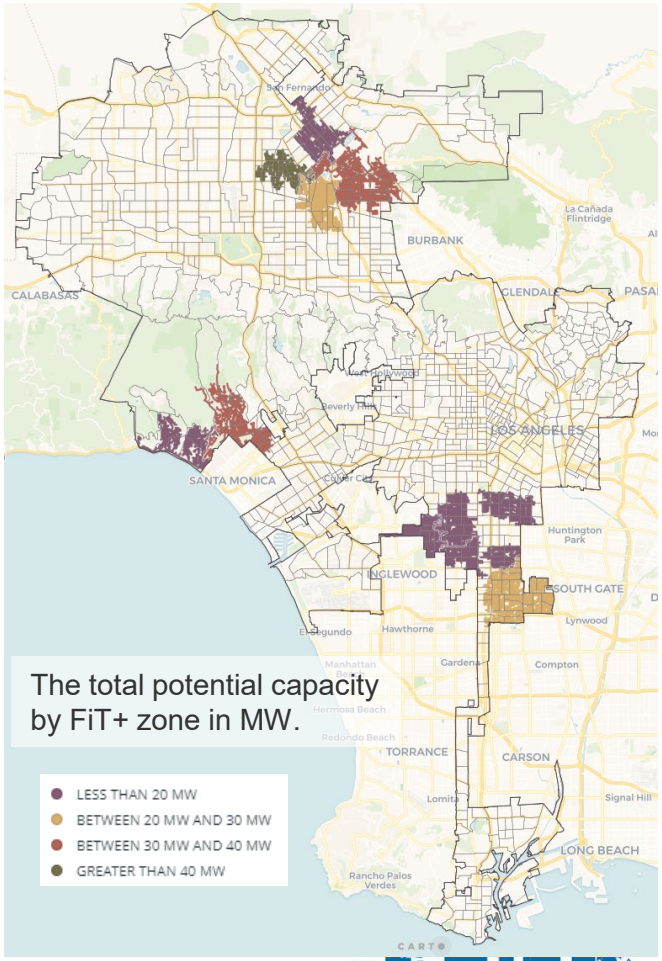
Tracts with high housing burden and high poverty rate are colored by the total capacity in the tract. Darker orange indicates higher capacity.

Potential Solar Sites in LADWP FiT+ Priority Zones

- 250 MW of potential solar capacity is in LADWP FiT+ priority zones which corresponds to 6% of the total potential capacity.



The dark grey regions show the intersection between LADWP FiT+ priority zones and disadvantaged tracts



The total potential capacity by FiT+ zone in MW.

LADWP Local Solar

Local Solar – By the Numbers

(Updated as of December 31, 2021)

Total 60,237 customer-installed solar systems connected to the grid

Net Energy Metering/Solar Incentive Program (SIP):

- $338.9 million in solar incentives for 34,601 systems since the program launch in 1999
- $288 million in incentives for 279.7 MW under state legislated program (SB1)*
- Total net-metered solar (includes SIP): 454.81 MW from 60,074 systems, generating approximately 751,000 MWh per year

*Includes incentives processed after the SIP program closed on December 31, 2018.

Feed-in Tariff (FiT) Program:

- 131 solar projects in service in the city, totaling 83.4 MW
- Two additional projects in the Owens Valley totaling 4 MW of capacity and 1 renewable landfill gas project with a capacity of 2.95 MW
- Total installed FiT program capacity: 90.35 MW.
- The energy produced from these projects is enough to supply nearly 26,700 homes

Feed-In Tariff Plus Program

- 5 projects submitted for evaluation totaling 1.78 MW

Solar Rooftops Program:

- 32 installations completed
- 116.4 kW of solar power being delivered
- 16 projects totaling 66.9 kW are expected to be installed in 2022

Shared Solar Program:

- 2,116 customers enrolled
- 177,850 kWh per month supplied

Utility Built Solar (in-basin)

- 47 installations completed totaling 6.9 MW

Source: LADWP 2021-22 Briefing Book

Interactive Map

https://nrel.carto.com/u/gds-member/builder/411ffd42-3873-42cb-8ae0-521d01f8f5b9/embed

Discussion

- Which layers in the presented map should be included in the ranking? Are communities interested in working with the data and curating the dataset—potentially identifying promising sites? Or providing rankings?
- Recreation centers have limited generation potential, while there is a much higher generation potential on multifamily buildings—how to address limitations with installing solar on multifamily buildings in low-to-moderate income (LMI) or disadvantaged neighborhoods?
- Can communities get involved in developing/initiating shared solar programs?
- Using parking canopies or solar carports for shading?
- Covered sidewalks with solar? (potential for future analysis)

Image source: Singapore sheltered walkway.

Image source: BCIT Burnaby campus' "energy oasis" solar panels. (BCIT).

Steering Committee Feedback

- Ensure community solar provides cost saving, resilience benefits to the local neighborhood
  - Concern about competing future land uses (parkland, affordable housing)
- Interest in decommissioned fossil fuel extraction/drill and processing sites for community solar
- Extensive ground truthing needed to determine viable/optimal sites in specific neighborhoods

Q&A

Green Jobs Workforce Development

Dr. Raul Hinojosa and Dr. Abel Valenzuela

Agenda

Part 1: Green Jobs Historical Calculator

Part 2: DWP Jobs and Regional Equity

Part 3: Projecting Green and DWP Jobs

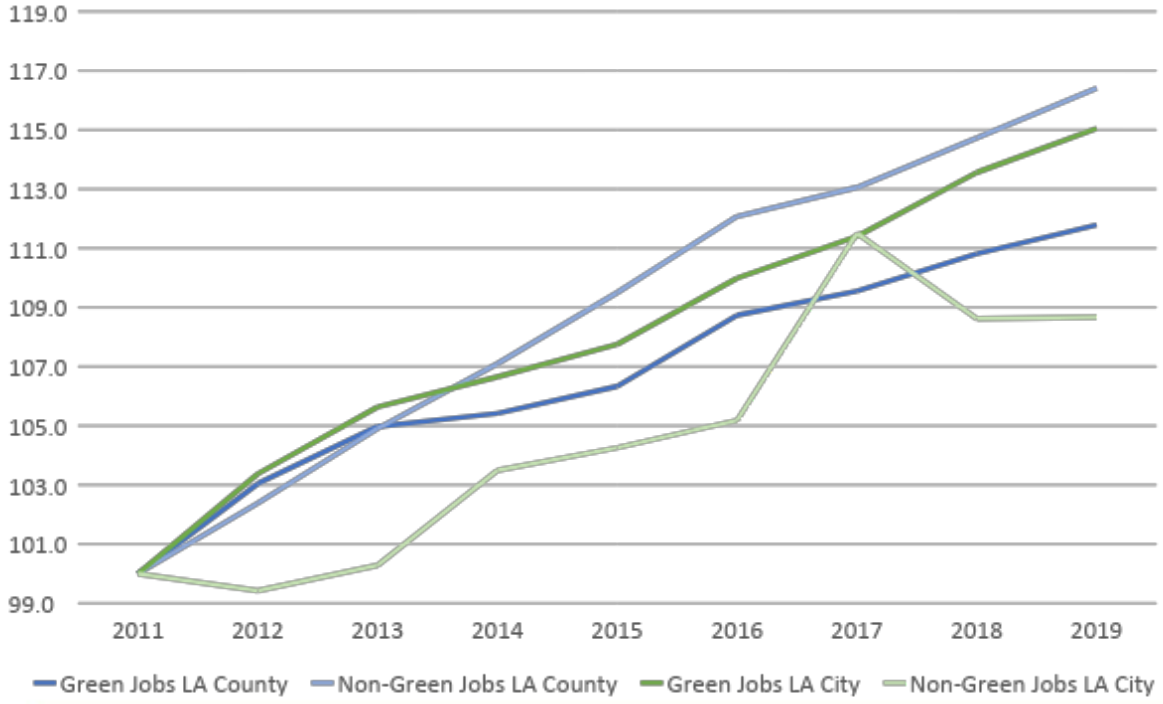
Part 4: Workforce Development and Community Engagement Challenges

Part 1: Green Jobs Historical Calculator

1. Green Job Historical Trends
2. Calculating Direct, Indirect and Induced Green Jobs
3. Regional/Racial Equity and Interdependence

Total green jobs have been growing more rapidly compared to total non-Green Jobs in LA City since 2011

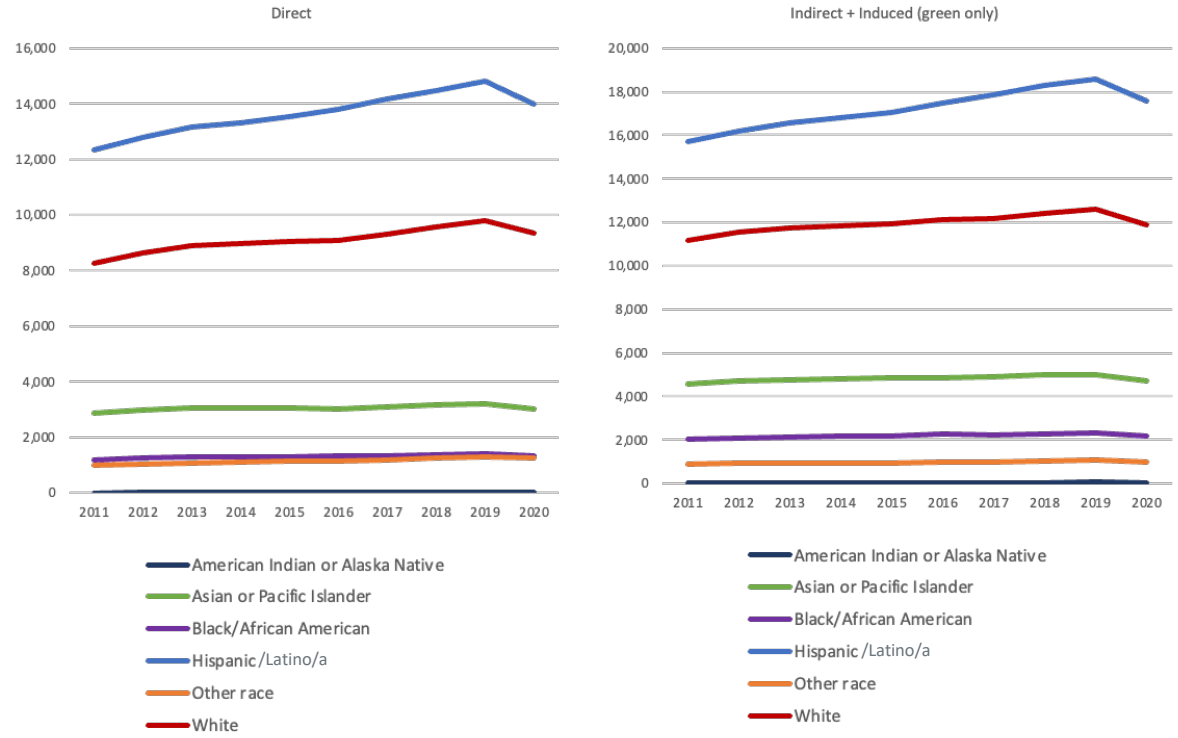
Figure 1: LA City and LA County, green and total non-green jobs growth index, 2011 = 100



Green jobs in LA City have grown 8.2% on average from 2011 to 2019 (base year = 2011), while total non-green jobs grew 4.6%.

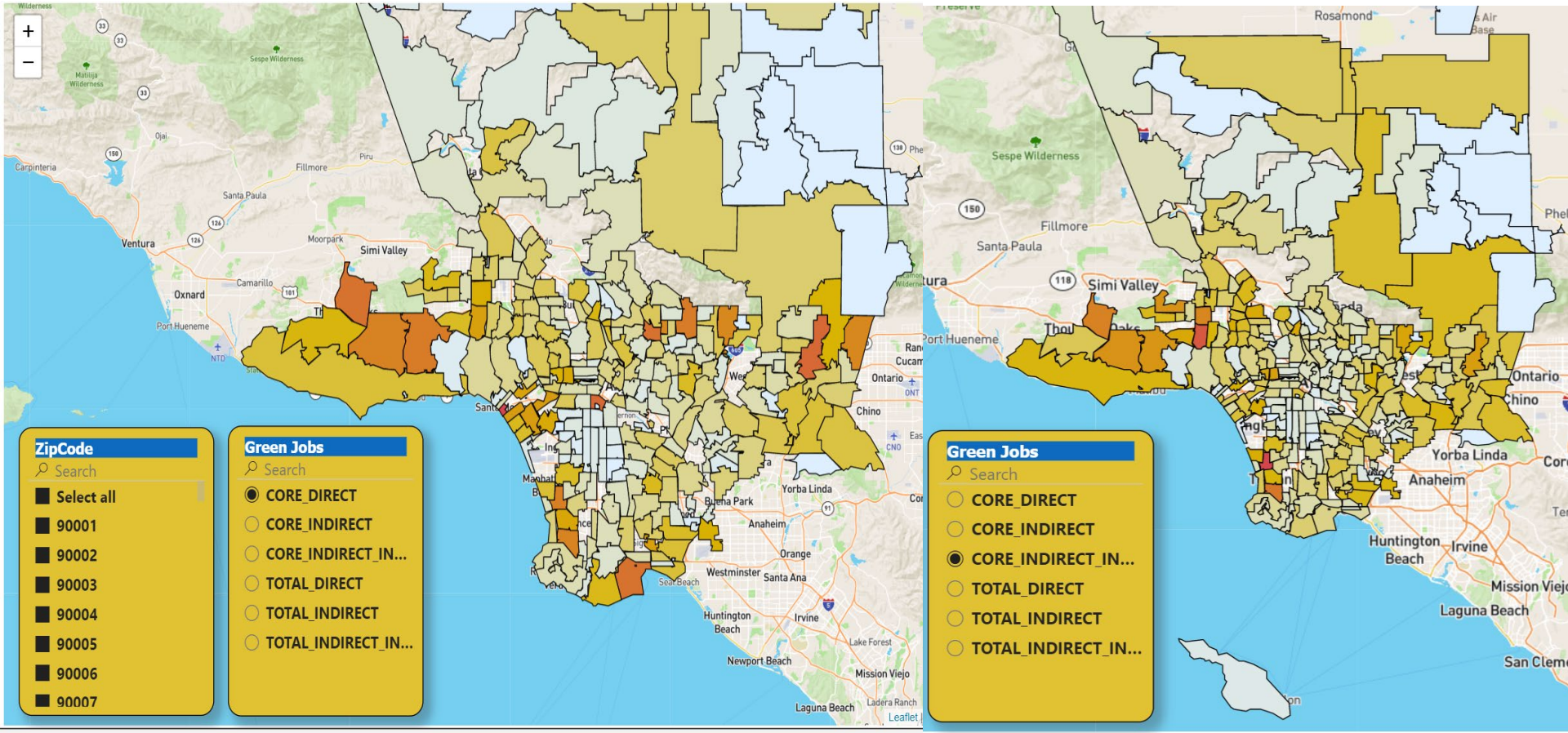
The Growth of Hispanic Green Jobs is very complementary and beneficial to White and Black Green and non-Green workers

Figure 4: LA City Green Direct, Indirect and Induced Total Green Jobs by Ethnicity, Number of Jobs



Hispanic workers are the largest group with Direct Green Jobs, yet the indirect + induced Green Jobs growth effects for all other races is higher than for Hispanic workers.

UCLA GIS MAPPING: Green Jobs by location of Work, Direct/Indirect+Induced



Part 2:
DWP Jobs and Regional Equity

Income

Occupation

Race/Ethnicity/Gender

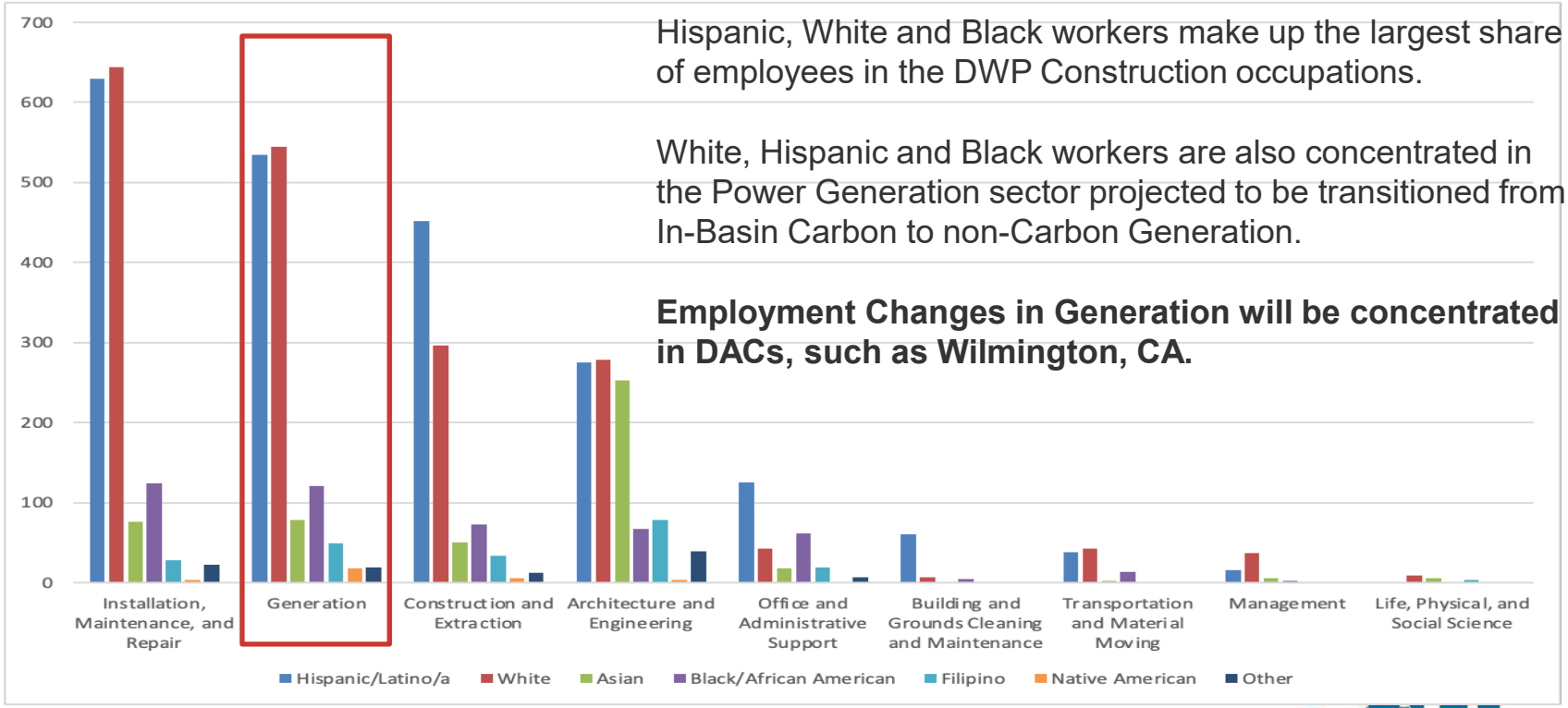
Geo-Residency DAC/non-DAC

Employment Impact of Investment

Main Takeaways from LADWP Employee Data

1. **Hispanic, White, Asian and Black workers make up the largest shares of employees in the DWP Power sector**
   - Hispanic workers are most represented in Construction, followed by White and Black workers
   - Energy Generation has White workers as the largest group, followed closely by Hispanic workers, and then Black workers
2. **Most DWP Workers, who are relatively well paid, do not live in Dis-Advantaged Communities (DACs)**
3. **However, Hispanic and Black workers make up the largest share of DWP employees living in DACs and earn the lowest wages of DWP workers living in both DACs and Non-DACs**
4. **Hispanic and Black workers are more concentrated in lower wages occupations and activities yet earn comparable wages in higher and lower paid occupations**

LADWP Total Workers in Power Sector by Occupation and Ethnicity



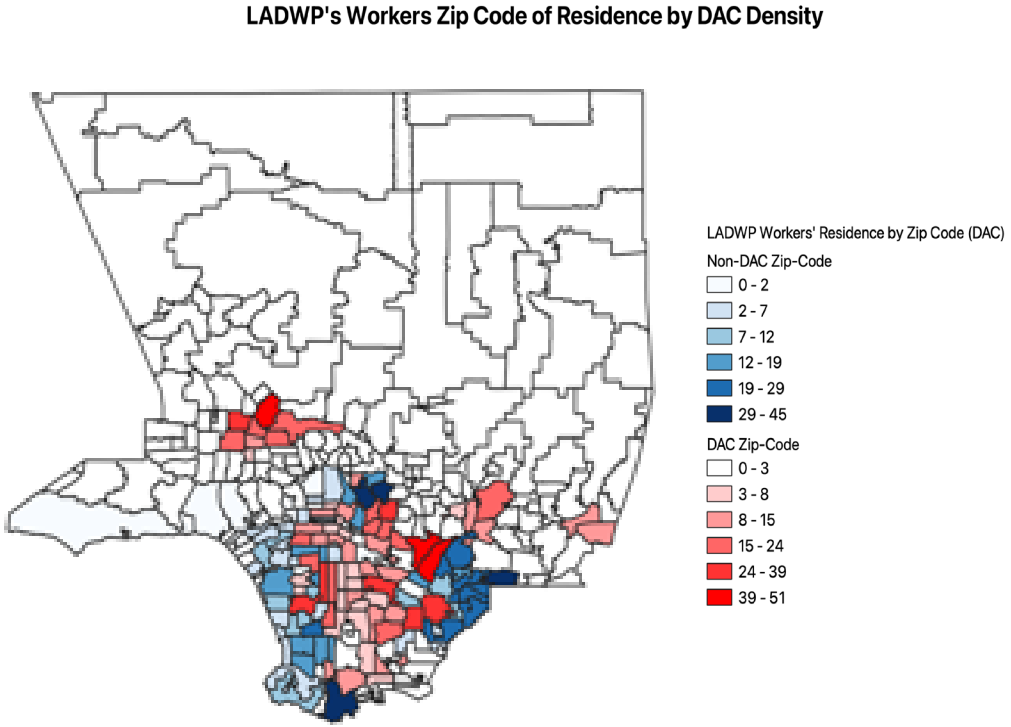
Hispanic, White and Black workers make up the largest share of employees in the DWP Construction occupations.

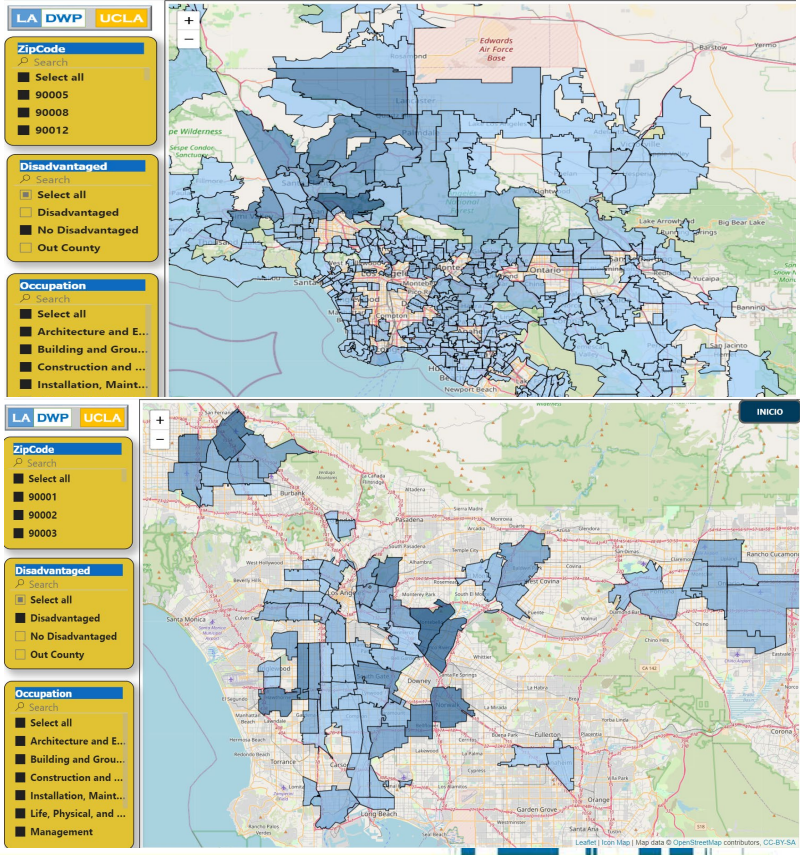
White, Hispanic and Black workers are also concentrated in the Power Generation sector projected to be transitioned from In-Basin Carbon to non-Carbon Generation.

Employment Changes in Generation will be concentrated in DACs, such as Wilmington, CA.

Source: Author's elaboration based on LADWP Administrative Data

UCLA Mapping Tool: LADWP Workers Zip Code Residence by DAC / Non-DAC Density



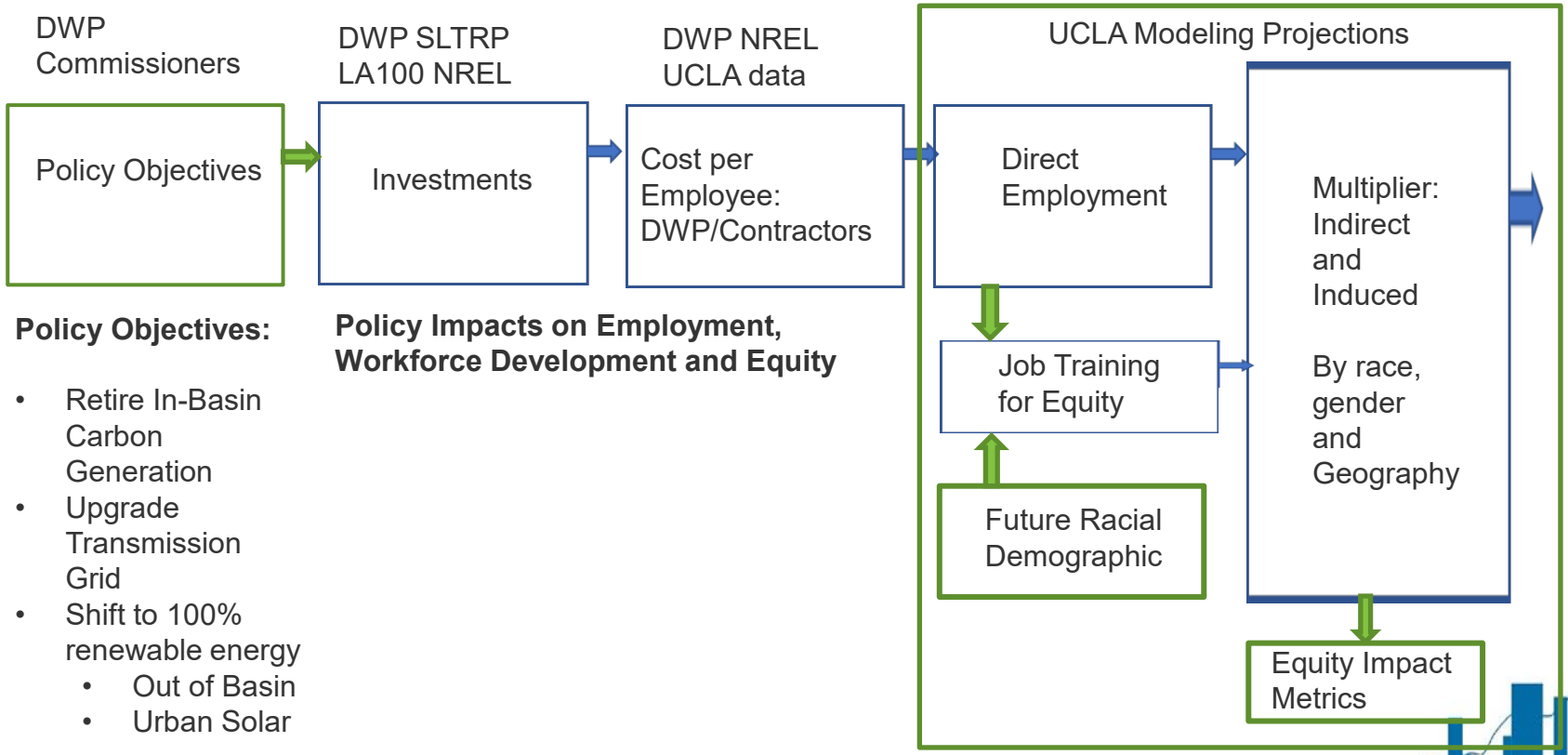


Part 3: Projecting LADWP Green Jobs

To ensure investments in DWP employment are sustainable and equitable, we must:

1) Estimate Baseline Inequality Gaps;
2) Estimate Employment Impacts of DWP;
3) Estimate Projected Demographic Change;
4) Estimate Necessary Workforce Development Investments.

Methodology for Estimating DWP Investment and Employment Impact



Policy Objectives:

- Retire In-Basin Carbon Generation
- Upgrade Transmission Grid
- Shift to 100% renewable energy
  - Out of Basin
  - Urban Solar

Policy Impacts on Employment, Workforce Development and Equity

Part 4: Community Engagement and Workforce Development Challenges

CASE STUDY: Wilmington Community

Methodology

- Historical Construction of Inequality, Projected Options
- Complementary Check to Equity Impact Modeling and Estimating Workforce Investment Requirements
- Community Resident and Organization Engagement of Data Evidence Usage for Future Strategic Investments for Workforce Training and Equitable Development
- Foundations for Equitable Workforce Trainings
- Principles of the High Road Workforce System

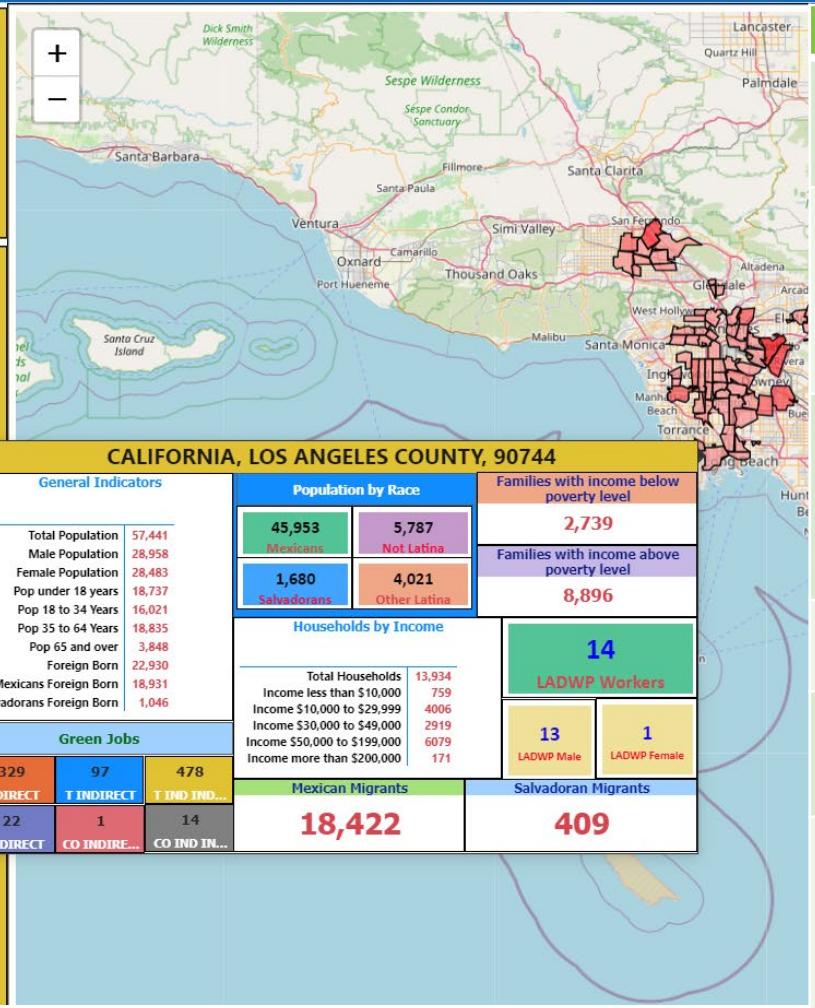
DWP Workers Residence by Zip Code Los Angeles County

INICIO

ZipCode
Search
- Select all
- 90001
- 90002
- 90003

Disadvantaged
Search
- Select all
- Disadvantaged
- No Disadvantaged
- Out County

Occupation
Search
- Select all
- Architecture and Er...
- Building and Grour...
- Construction and E...
- Installation, Mainte...
- Life, Physical, and S...
- Management
- Office and Administ...
- Production
- Transportation and ...



CALIFORNIA, LOS ANGELES COUNTY, 90744

General Indicators

Total Population	57,441
Male Population	28,958
Female Population	28,483
Pop under 18 years	18,737
Pop 18 to 34 Years	16,021
Pop 35 to 64 Years	18,835
Pop 65 and over	3,848
Foreign Born	22,930
Mexicans Foreign Born	18,931
Salvadorans Foreign Born	1,046

Population by Race

45,953 Mexicans	5,787 Not Latina
1,680 Salvadorans	4,021 Other Latina

Families with income below poverty level: 2,739

Families with income above poverty level: 8,896

Households by Income

Total Households	13,934
Income less than $10,000	759
Income $10,000 to $29,999	4006
Income $30,000 to $49,000	2919
Income $50,000 to $199,000	6079
Income more than $200,000	171

14 LADWP Workers

13 LADWP Male | 1 LADWP Female

Green Jobs

329 T DIRECT	97 T INDIRECT	478 T IND IND...
22 CO DIRECT	1 CO INDIRE...	14 CO IND IN...

Mexican Migrants: 18,422

Salvadoran Migrants: 409

DWP Data on Wilmington

DAC Census Tracts in Zip Code	88%
LADWP Power Workers Residing in Wilmington	0.26%
LADWP Power Workers Reporting in Wilmington	2.4%
Green Jobs in Wilmington	807
Direct Green Jobs	329
Indirect + Induced Green Jobs	478

Legacy pollution

At or above at least one threshold?	Yes
Proximity to hazardous waste facilities Count of hazardous waste facilities within 5 kilometers	95th ↑ above 90th percentile
Proximity to National Priorities List (NPL) sites Proposed or listed NPL (Superfund) sites within 5 kilometers	73th ↓ below 90th percentile
Proximity to Risk Management Plan (RMP) facilities RMP facilities within 5 kilometers	99th ↑ above 90th percentile
AND	
At or above both associated thresholds?	Yes
Low income Household income is less than or equal to twice the federal poverty level	91st ↑ above 65th percentile
Higher education non-enrollment Percent of the census tract's population 15 or older not enrolled in college, university, or graduate school	91% ↑ above 80% percent

Wilmington Residents Community Engagement Meeting Approach

1. Community leaders have already identified the participants, all residents of Wilmington
2. Our first approach is to understand their level of knowledge on:
   - LADWP
   - Energy Consumption and Environmental Impacts
   - Wilmington Historical Background
   - Green Jobs Workforce Development
   - Justice 40 Funding Initiatives
3. Evaluate first resident's community engagement meeting to develop follow up meeting based on level of understanding.

Principles of the High Road workforce system — targeting quality jobs that provide economic security

Policy goals are to create job training and workforce pipeline to fulfill Green Economy needs, enabling upward mobility for Californians, while integrating all programs and resources into one effective community oriented strategy.

Public investment	Job quality	Equity	Environmental sustainability	Worker voice
• funds should be provided to ensure the program succeeds	• green jobs that pay well, are secure, and contribute to valuable industries	• bring green job workers to the table, enabling more voices to be heard	• work to increase green jobs that are environmentally sustainable	• address systemic inequalities, bringing people to green jobs that have excluded them

Steering Committee Feedback

- “Similar to our community solar conversation, we need to ground truth in these communities to understand what are the barriers for communities of colors to access these jobs? for ex. additional training needed or access to training programs. while also educating folx about the opportunities for good jobs at LADWP”

- “LADWP could take a look at the SEED workforce development program from LA Metro. The SEED School of Los Angeles County will be the nation’s first boarding school for grades 9-12”

Q&A

Wrap Up and Next Steps

Going Forward

Advisory Committee Meetings

Next Meeting
Virtual

- Legal and Regulatory Constraints
- Household energy modeling approach
- Transportation EV charging infrastructure
- Rate analysis/affordability modeling

Subsequent Meetings

- **Fourth Wednesday of every other month, 10:00 a.m. – 12:00 p.m. PT**
- **Virtual** for near-term

Thank you!